

SUPPLEMENT.

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FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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No. 2391.—VOL. LI.

LONDON, SATURDAY, JUNE 18, 1881.

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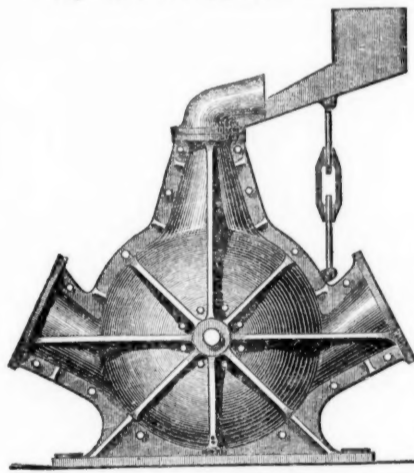
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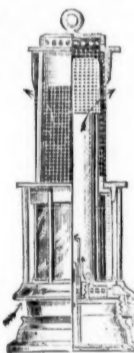
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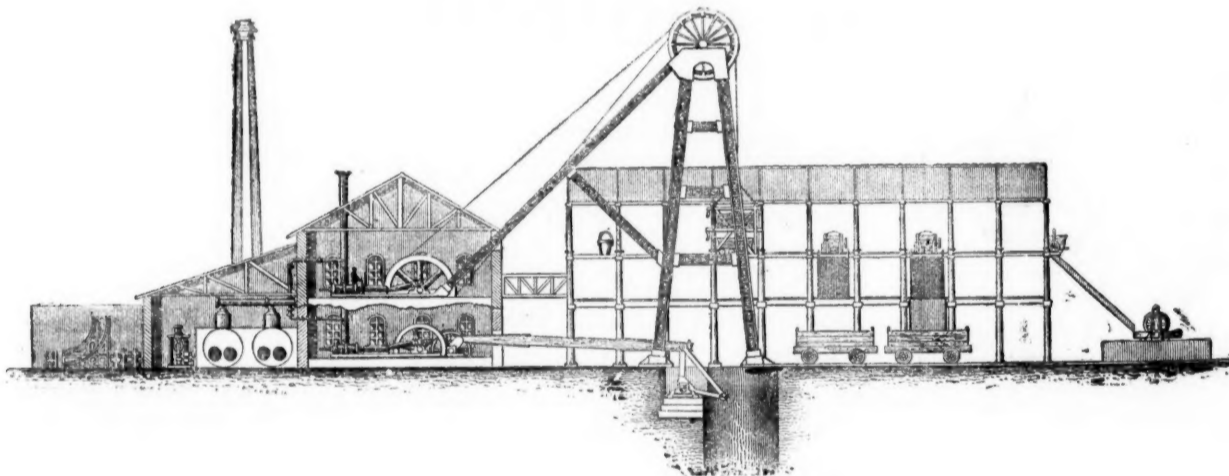
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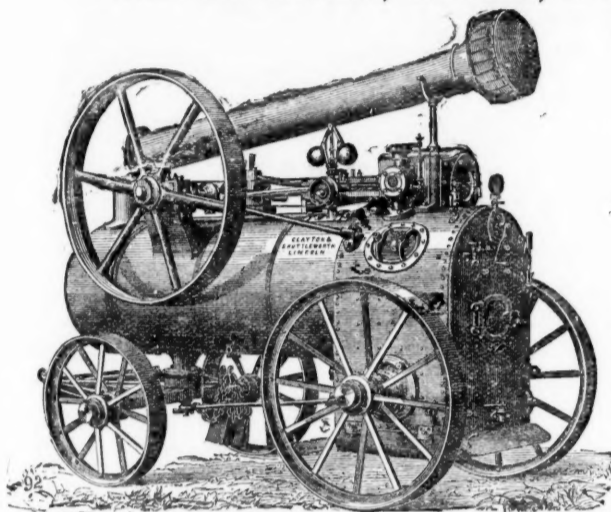
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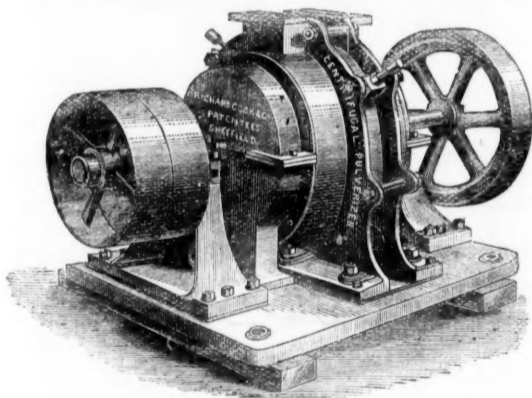
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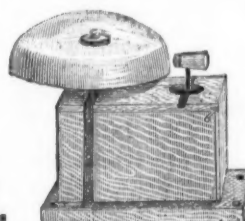
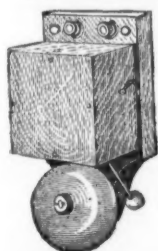
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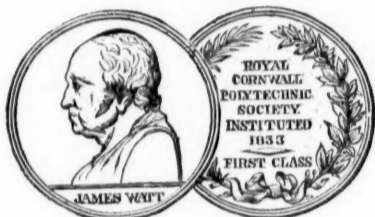
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Original Correspondence.

DIAMOND MINING IN SOUTH AFRICA—No. IV.

THE JAGERSFONTEIN MINE.

SIR,—Having given you a general outline showing the history and development of the Kimberley, De Beers, Du Toit's Pan, and Bultfontein mines, I now desire to direct attention for a moment from those mines to the Jagersfontein Mine. I stated in my first letter that I should devote a whole page to Jagersfontein, as that mine is in no way connected with those I have been dealing with before.

The Jagersfontein Mine is situated within about half an hour's ride of the fertile and pleasant town of Fauresmith, and the mine lies in a kind of saucer, surrounded by ranges of hills on every side. Unlike the other mines of which I have written, the spot is most picturesque, and there is an abundance of water, which flows in a torrent down a gorge, and is conducted without much trouble or expense to wherever it may be required.

Diamonds were found at Jagersfontein many years since, and the place was "rushed"—i.e., a number of persons went there, marked out claims, and commenced digging. They found a few diamonds, but not nearly sufficient to pay them for working, and so they gave it up, giving as their reason that diamonds were not to be found there in paying quantities. However, this did not deter a company which was formed in 1875 from sending down a working party under the management of an old experienced digger. This I think must have been at least two years after the first party of diggers had abandoned it. All that these parties, first and second, knew of the matter was that diamonds had been found at Jagersfontein, neither of them knew where, but as in all the other diggings the diamondiferous soil was found on the summit of a Kopje in the first place, and when the surface soil had been worked out there by digging out the soil straight down into the Kopje they thought that was the only way to pursue operations at this place. They selected a Kopje which looked as much like the original Colesberg Kopje (now the Kimberley Mine) as one pin is like another, and they confined their operations to that spot. Besides it had been a dogma of a gentleman who had been sent out by an eminent London firm to report upon the diamond mines of South Africa that it was useless to look for diamonds except near the brow of a little hill or Kopje, and as he had set himself up to be an authority the diggers had taken him to be one, and accepted his dogma as a settled scientific theory never to be disputed. The both parties found diamonds, but not sufficient to pay the working expenses. The company who sent out the second party finding it did not pay recalled them.

About three years or three years and a half ago diamonds were again found at Jagersfontein, and it came to the knowledge of some of the parties who were working in the old established claims that this was the case, and the diamonds found were exceedingly fine, they went out and, discovering the spots on which the diamonds were found, kept some parties there searching, and were fairly rewarded for their outlay. In a little time Jagersfontein was proclaimed to be a digging, claims were marked out, and terms were come to with the owners of the land. The Government sent down an inspector of claims; a plan of the mine was drawn, claims set out, and in a very short time every claim was taken up. Storekeepers and canteen keepers set about building places of business for themselves, and valuable parcels of diamonds kept coming into Kimberley for sale. The claim holders in the other mines pool-pooled the whole affair, as it is the custom of diggers in old established mines to do whenever any new digging is discovered. My attention was first directed to Jagersfontein by seeing a parcel of very beautiful diamonds about the sale of which there was a dispute, and in reference to the transaction my professional advice was solicited. I then resolved to go down to Jagersfontein and see for myself, and I carried my resolution into effect.

On my arrival at Jagersfontein I found a good many of the old hands I had known as diggers on the Vaal River in Kimberley, Du Toit's Pan, and Bultfontein. They had all possessed themselves of claims, and some of the more knowing ones who had been watching the finds had begun to purchase what they considered to be good ground. A company had been formed to work one block of claims and had erected machinery and were working it, and were said to be finding fairly well. The parties who were doing the chief work at that time were Messrs. Miller and Kerr, the Messrs. Gompertz Brothers, the Messrs. Weil, Harrington, and a few others whose names I need not enumerate. But of all that were working Messrs. Miller and Kerr had the best machinery, and even that was of the most primitive kind. The machinery with which the Messrs. Gompertz were working had been discarded by the diggers in the other mines long before, and the fact was that very little work had been done. One might say that none of the ground had been done more than just scratched.

What I wanted to see was not how many diamonds had been found, or whether anybody had made a fortune, but what was the character of the ground. I had known Mr. M. Keyter, the inspector of the mine many years before, and I ascertained from him what the state of affairs was there, and having done that I went to see for myself. I soon found that the character of the soil was different from that of the diamondiferous soil in the older mines. There was none of that light yellow sandy surface soil I had seen in the earlier days of the other mines, and diamonds were not to be picked out of sand as they had been in the Kimberley, Du Toit's Pan, Bultfontein, and De Beers Mines for instance. Had I seen the mine without having had an opportunity of watching the working of the soil by machinery I think it more than probable that I should have gone away under the impression that diamonds are not to be found there. I, however, watched to see a wash up, and directly I saw the clean gravel thrown out upon the sorting table I was convinced that the soil was diamondiferous. It was when washed out precisely the same as that I had seen before in the other mines. Whilst I stood by the sorting table of the first claimholders I recognised the sorter took out two diamonds, and I could see that they were of the same quality as those in the parcel I mentioned above, about which there was a dispute relative to sale in Kimberley. The diamonds were pure white, but they have a complexion which I had never seen in the diamonds from the other mines, and there can be no mistaking the Jagersfontein diamonds for those either from the other mines or from the river diggings. Generally speaking, they are more like river tones.

I do not mean it to be inferred that I have seen none so white or of so fine a quality taken out of the other mines. For instance, than Mr. Porter Rhodes' diamond nothing could be purer or whiter, and that was taken from the Kimberley Mine. Placed by the side of that diamond all others which appear of the first water when looked at by themselves show colour. I have seen first water diamonds from all the mines, but then the diamond from each mine has a complexion or character by which it can be identified, but what I found to be characteristic of the diamonds in Jagersfontein was that there were no yellows, all were white, and taken as a whole they were of much finer quality than the diamonds taken from the other mines.

I remained there one week, saw wash-up after wash-up, and had a fair opportunity of judging. I saw clearly that the men in possession had not sufficient capital to work the mine, but that so soon as capital was brought to bear, and proper machinery employed, investments in that mine would well repay investors. Miller and Kerr were already building fine stables and getting a plant together, and I felt sure that the Kerrs were finding more than they cared to tell. I saw a parcel of theirs which they had taken in a few days worth a lot of money; and so, having observed for myself, and watched the action of the parties who held the claims, I wrote a report of my visit in the Diamond Field Advertiser, which some of my friends thought at the time would not stand the test of time. I was too sanguine, they said. Now let us see whether they or I were right.

Messrs. Miller and Kerr have since that time employed suitable machinery, and out of their claims have amassed large sums of money, and the other day, in one day's wash, they took out diamonds to the value of 2000*l*. The ground they washed came out of the corner of their ground adjoining the claims of the Central Jagers-

fontein Company, and is close to the claims of the Messrs. Weil Brothers, who I learnt from cablegram last week had sold 11 of their claims for 55,000*l*. The shares in the London and Jagersfontein Diamond Mining Company are selling at 60*s*. to 80*s*. prem., and are in good demand. A claimholder in this mine, who arrived in England last week by the Garth Castle steamer, received a cablegram on Saturday last offering him 3000*l*. per claim for a block of 20 claims, with the accompanying offers of 60*l*. per share in the Star Company Jagersfontein, and 37*l*. per share in the Fauresmith Company. The parcels of diamonds which come from Jagersfontein into the hands of dealers in Europe are admitted to be quite equal to any that ever the Brazilian mines produced, and I venture now to predict that as soon as sufficient capital has been invested in machinery, plant, and labour in working the Jagersfontein claim they will find diamonds in quality and quantity excelled nowhere.

South African Office, Upper Thames-street.

R. W. MURRAY.

BRAZILIAN NEWS.

SIR,—We have had our elephant. The Emperor has been and seen the nakedness of the land, which all the whitewashings and fire-works could not hide. The Emperor must surely think there is something wrong when he makes comparisons between his own and other countries. Here he finds a population who have lost the habits of industry as individuals, and amongst whom all enterprise has apparently died out, and always looking to the Government or the foreigner to assist them. Pretty nearly all of them have a rich mine or a tame mule to sell, and when they have neither they are poor indeed. But when the mine is inspected it is found to be valueless, and the less said about the mules the better; but these things serve them to talk about while they are making their straw cigars, which they are generally doing all day long. This state of things has been brought about by the law of Partilha and slavery.

The Emperor visited many mines, and amongst them Morro Velho, Don Pedro North del Rey, Passagem, &c. At Ouro Preto, at the School of Mines, he was treated to a lecture on Gold, and his attention was most unfairly called to the loss at the Morro Velho Mines of the St. John del Rey Company. It was probably natural for the French director of the School to endeavour to prevent the Emperor having too favourable an opinion of English mining enterprise in Brazil.

It certainly was a most unfavourable time for the Emperor to visit this establishment, as the "admixture of killas and quartz" still continues, although always declared to be "temporary." At Morro Velho and Congonhas this is read as the giving out of the lode, and this is the opinion of "Verdad," who has had good means of judging. In the opinion of others it means the "bad way of working the mine." Whichever it is it is most serious for the shareholders. The splendid hospitalities must have been very costly, and it must be a source of congratulation to the shareholders that under the present depressing circumstances the managers spared no expense to entertain the Emperor. At Don Pedro North del Rey the Emperor breakfasted, and made particular enquiries of Mr. Heilbuth if that company had any slaves of their own. The emphatic way in which Mr. Heilbuth replied—"N-e-v-e-r, your Majesty," seemed greatly to impress his Majesty with the respectability of that company. The new ram machinery was working splendidly, and the Emperor left the establishment for Antonia Pereira, expressing his great satisfaction at his reception, and wishing success to the new machinery.

Reports are rife of a favourable discovery at Pitangui. At Pari they are progressing favourably with the Rego. Unfortunately for the Santa Barbara Company Capt. Thos. Richards, under whose management the mine made such favourable progress when Mr. Hilleke was director, has suddenly left. At Passagem some very pretty machinery has been erected, and work will now go on there with spirit and enterprise directed, as it is, with intelligence and experience. At Descoberta satisfactory progress is being made with what is necessary at surface. There is always great excitement in jacotinga mining, as a stroke of the pick may uncover great wealth at any time—not so with rock mines. Progress is being made with the subscription to the rail from Ouro Preto to Carandahy. Senor Joao Manlevado has some thoughts of turning his iron fabrica into a joint-stock company; he has a provincial guarantee of 7 per cent. upon the capital required.

SEBRATO.

BRAZILIAN GOLD MINES.

SIR,—The statement from one of your Brazilian correspondents, in last week's Journal, regarding these mines has caused great consternation to the shareholders, and I feel sure the same must have escaped notice before insertion. I sent a copy of the manager's last report from the mines, since which we have received no further information; in fact, the same is not due until about June 18.

Regarding the floating of the company the accompanying statement of accounts will surely verify that the whole of the capital applied for has been fully subscribed, and at present date there only remains 600*l*. arrears of call, which by arrangement will be paid during the current month. Under these circumstances the sentence of "a deception has been practised on the Londoners—if, indeed, the shares were floated" is very unfair to the directors and myself.

GEORGE C. HARVEY, Sec.

[In forwarding the statement of accounts to be presented at the meeting on Thursday next the directors explain that, although prepared in the form of a balance-sheet, it is in reality a record and synopsis of the receipts, payments, and investments, with the addition of sundry small liabilities—the four last items on the debit side of the account (420*l*. in all). It was the end of July last before the working operations were commenced at the mines, and, inasmuch as no returns have been made, a profit and loss account is superfluous. The first issue of capital was 40,000*l*., the whole of which has been subscribed for; and of this amount the balance-sheet shows that at the close of the financial year 38,900*l*. had been paid up, leaving 1100*l*. due on calls at that date. Out of this sum the San Antonio Estate and Mines have been purchased for 20,000*l*. The cash in bank, &c., amounts to 12,327*l*. 12*s*. 9*d*., and in the hands of the agents of the company at Rio there is a balance of 433*l*. 17*s*. 5*d*. Mr. W. Greig, the vendor, owes the company 318*l*. 14*s*. 3*d*. in respect of his proportion of agreed costs incurred in Brazil, against which the company hold 4000 shares as collateral security. The other assets consist of plant and machinery, animals—mules, buildings, and office furniture. There are also sundry items of expenditure incident to the establishment and working of the company, all of which are fully set out in the balance-sheet, which is unusually clear and explicit.]

MINING IN BRAZIL—ST. JOHN DEL REY.

SIR,—In view of the fact that the time is just at hand when all the remarks that I have made in connection with the St. John del Rey Company may be verified. I want to ask one or two questions, and I suggest that some shareholder repeat them at the meeting:—1. Why, since the new hoisting works have been put in motion, the mine has not given the results that were anticipated in view of the thousands of tons of ore that were reported to have been quarried during the time of the erection of the works? 2. What is the quantity of quarried mineral existing in the mine at present? 3. Has the cost been fairly charged since the new hoisting gear was set to work?

The St. John del Rey Mine has been failing for a considerable time; the fact has been known to at least one director, as he publicly stated that he spoke from a knowledge of the mine (see report of last general meeting). No mention has been made of the pinching out of the vein of good ore, the decrease in earnings being always attributed to a "temporary admixture of killas," when it was well known, and here much talked about, that it was a permanent falling off. The decline has been distinctly marked; and, question 4, I would ask if this was not made the subject of a report, or embodied in a report made by the mine engineer and captain some three years since, although, as I understand, it was not made public? 5. What has become of the important strike which was telegraphed to London a short time ago? And, 6, why was the engineer, Captain Dale, transferred to Cuiba three years ago, directly after his report on the condition of the mine?

I do not mean to say that the St. John del Rey Mine is entirely worked out some good dividends may be earned yet. The com-

pany no longer rules the Province, and I do but repeat the general expression of Englishmen and intelligent Brazilians when I say that they have pursued a policy towards new comers by which they have made themselves liable to very critical inspection, have forfeited the friendship of new companies, and the right to expect business courtesy from their competitors, who will take, when they are wanted, their officers and men not bound by contract and glad enough to get away from both the mine and the management.

San Antonio do Rio Acima, Brazil, May 4.

VERDAD.

ST. JOHN DEL REY.

SIR,—I was glad to read the letter in last week's Journal from Mr. J. R. Partridge, and find that, according to his own showing, his only transaction in connection with the company was to sell 300 shares, and thus, I presume, sever his interest in the undertaking; on the other hand, my only transaction has been to buy shares, and I for one strongly object to have my property damaged by local mine managers reporting upon properties in which they have no stake. This unpleasant criticism has been growing of late—more particularly as regards Brazilian undertakings—as apart from the above concern the Brazilian Gold Mines have not been spared, and I am convinced that there must be some interested motive in view, probably to frighten or influence country shareholders. But as far as I can gather, from official advices received from the "other side," and enquiries made in London, there are no grounds for any alarm, as the management abroad is conducted by experienced practical men, and at home, as can easily be ascertained, by sound and highly respectable gentlemen.—London, June 16.

INVESTOR.

EUREKA (NEVADA) MINING DISTRICT.

SIR,—I beg to hand you my usual budget of news from this mining centre:—

The last and 67th dividend of the Eureka Consolidated brings \$25,000 into the pockets of the shareholders, and a grand aggregate of \$4,590,000. As was announced at the time, the Richmond Company has recently resumed sinking their main shaft. The last 200 ft. of the shaft had cut through the limestone zone and penetrated the quartzite. About 50 ft. has been made since sinking was resumed. Strange to say, the barren quartzite has given way to an almost pure white quartz, carrying a fair amount of metal. Assays average \$30 per ton. It is a magnificent article of flux, and now the ore taken from the shaft is being moved in the dumps for shipment to the reduction works. This is an entirely new feature in mining on Ruby Hill, and may add untold wealth to the mines of that portion of our district. Further developments will be watched with no little interest. If the whole quartzite belt should change at that depth to paying quartz our mines would become practically inexhaustible.

Speaking of the new kind of white quartz in the Richmond main shaft, the Ruby Hill Mining News says:—A few days since almost a pure white quartz was struck, which carries considerable metal, and is the best article of flux yet found in the district. Miners say it resembles that found in the Banner Mine at Grass Valley. It is a new feature on Ruby Hill, and has excited a good deal of speculation among miners.

Albion is still a popular favourite, having advanced yesterday to \$3.60. It is now pretty generally conceded here that it will not fall back much between now and the trial.

About 95 men are now employed in the Albion. A number of new cars, a cage, &c., have been received lately, and, judging from the preparations, it is the purpose of the management to push work in the mine.

Wales Consolidated got as high yesterday as \$1.75.

London, June 16.

RUBY HILL

GOLD MINING ASSOCIATION OF CANADA.

SIR,—With regard to the letters of Mr. H. W. Higgins and that of "Scrutator" in last week's Journal, I can only say that having been present at the annual general meeting of this company I think the shareholders are under a deep debt of gratitude to Mr. Higgins for his plucky efforts in trying to elicit every possible information for their benefit generally. I think it is a pity you had not space to insert the copies of the letters of Mr. Stewart as requested by Mr. Higgins, as their contents are a very strong point against the *bona fides* of the letter of "Justice" of April 30, which appeared in the *Mining Journal* of that date. If "Scrutator" is in possession of any facts against the *bona fides* of this concern, I hope he will let us have them.—June 10.

A SHAREHOLDER.

THE MOSELLE MINING COMPANY.

SIR,—It has been concluded, from the prospectus published in last week's Journal, that Mr. John Kendall accompanied Herr Schneider in his inspection of the Carden Mine on May 24, 1881. A more careful investigation will show that this date does not apply to the inspection of Mr. John Kendall, which was in December, 1876. It is to this that Herr Schneider refers, as will be seen by reference to the footnote to Mr. Kendall's report, which is as follows:—"Since this report was written a shaft has been sunk 195 feet under adit, and a level is being driven at that depth to get under the rich ore ground mentioned in report. This drive is now in a lode producing rich silver-lead." It is obvious that a shaft of 30 fathoms could not have been sunk in three weeks, as is implied by the misconception referred to.—New Broad-street, June 15.

A. H. CARLEY,

Secretary pro tem.

MARBELLA IRON ORE COMPANY.

SIR,—Notwithstanding the recent rise in value of these shares I strongly advise my co-shareholders to stick to their holdings. I believe the shares will go much higher, as latest advices from Spain state the mine is looking extremely well, turning out abundance of ore, which is in strong demand for steel making. Sales forward for a very considerable period have been made, and a good dividend is more than earned already. I just learn the directors contemplate issuing a special report early next month, and it is very probable an interim dividend will be declared in July. This matter is to be considered at the directors' meeting about to be held.

Manchester.

A SHAREHOLDER.

SILICATE OF GOLD, &c.

SIR,—The interesting and important communication of Mr. Kagenbush in last week's Journal I hope will attract a good deal of attention. I know it is the fashion to curl the lip slightly at such notions, but it will presently have to be generally acknowledged that there is not only silicate of gold but antimonide, arsenide, telluride, and sulphide of gold; also and that these several states of being are not only very common to pyritous minerals but that in them is a continuity of change. That the causes of such changes are not fully understood takes nothing from the fact itself. It is fact. The prince of geologists (Lyell) has said—"The forces now operating upon the earth are the same in kind and degree as those which in the remotest times produced geological changes." It is feebly attempted to deny this by some aspirants at distinction. The director-general of the Geological Survey I believe accepts it as positive truth. There are, however, comparatively few who accept the notion that the constituents of rocks (the minerals) are subject to continual change, if not always to increase. It used to be held that the less is included in the greater. If so considered, the increase of rock-masses must necessarily imply an increase change of individual minerals constituting the rock-masses. In fact, metamorphism must be admitted more or less by all. It must be allowed that a rock in one state or kind has been changed into another state of being. Sandstone into quartz-rock, for example. Let it be admitted that there are internal movements in minerals and rocks, and metamorphism becomes no longer theory, but fact. That no one is able to appreciate such facts by measurement of any kind does not eliminate the fact from existence. The fact remains that changes are ordinarily going on and on.

It is not at all improbable that change is the great maintainer of coherence in inorganic as well as organic substances. A boy and the man are not distinct forms of being. The boy has grown older, it has been said, and a modicum of time only has made all the difference; whereas Time, as a factor, had nothing whatever to do with the change. That gold, silver, and other metals change their states of being is not owing to lapse of time periods. The changing forces exist altogether independently of time periods. Probably there is no absolute stillness in natural objects, if in artificial objects. The most delicate visual faculty is more like absolute blindness to Nature's continuous operations than farsightedness or clear-sightedness. A refuse heap of a metalliferous mine is a reproving monument of shortsightedness, if not of blindness. People talk glibly often of chemical affinity, electricity, magnetism, and the like, without say-

ing very much, as if naming a thing was equivalent to understanding all about it. The father who names his child seldom pretends to know how the little bones got into it. Those who are so fond of looking into the dark distances of the past, and striking a match (and that a bad one) for a moment in that darkness, hardly do more than make darkness faintly visible by their puny attempts at illumination.

A writer recently struck a dim light in the past darkness. He wrote an "article" on what he saw, or fancied he saw, brought it to the light, and it vanished. But he had written. He could write, and write well. Though he knew this writing to be error he had not the courage to unwrite it, but let it pass with the observation "What I have written, I have written." The writing related to spontaneous movement in inorganic substances. How difficult it seems to some folks the saying "I don't know." To deny a fact because it is incomprehensible is simply foolery. If it be fact that most metals expand on taking the solid form, surely it is not less a fact because the *modus operandi* or formation forces are incomprehensible?

It is all very fine to speak of the "ordinary conditions of matter," it is just at this threshold of enquiry that the observer has to pause; we know next to nothing about them. The beginning seems never to have been begun at. No analyses of relationship of matter, worthy of name, have yet been made. The time-table of Nature at present mentions very few stations to stop at on her lines of transition. It is really very cheering when now and then a little progress is made. I have a crystal of gold (not a gold crystal) pseudomorphous after quartz; a silicate of gold, I believe, has effected this interesting change.—London, June 16. T. A. READWIN.

NOBEL'S BLASTING GELATINE.

SIR,—On June 8 and 9 we witnessed very interesting experiments made by Mr. Parry, the instructor in the use of this class of explosives, in the employ of Noble's Explosive Company, Glasgow, at the Cakley Quarries, North Wales, with the new explosive called Blasting Gelatine. This very powerful explosive is said to be a compound of nitro-glycerine, with a special quantity of nitro-cotton. In appearance it somewhat resembles a thick jelly, of a brownish colour; and its disruptive force is said to be at least 50 per cent. greater than that of dynamite, which data was as nearly as possible carefully adhered to in all experiments made by the company's instructor. Let it be observed that there were no especially drilled holes made for the occasion; on the contrary, the quarry was worked from floor to floor, or galleries as they are sometimes called, and the miners' holes taken advantage of as the miners were come across, preparing to blast in their respective places with the usual explosives—dynamite, gun-cotton, &c.

The first experiment was made in a heading driven in slate-rock, on floor 2, under the clay slant, as it termed, in a hole 15 in. deep, by $\frac{1}{2}$ in., remnant of a 23 in. hole, which had previously been charged with dynamite, and blasted unsuccessfully by the miners thereon employed, and, with the object of casing the 15 in. hole, the miners had drilled a 22-in. hole, which was to be fired first, and the 15-in. hole to follow. Having learnt this, and to test the strength of the gelatine outright, the arrangements of the miners were reversed; the 15-in. hole was to be fired first, and the 22-in. hole was to follow. Into the hole $1\frac{1}{2}$ pellets, weighing, I presume, about 3 ozs. of gelatine were inserted, which was exploded by means of a dynamite detonator, with a dynamite pioneer, the company, it would appear, do not at present think it advisable to issue for this purpose any other than the dynamite detonator. The charge being gently tamped with a wooden tamper or rod it was fired, which exploded with a tremendous report. On returning to examine the result it was found the new explosive had completely and most thoroughly done its work. So thoroughly and clean the work had been done that the miners stood looking in astonishment at one another. In the same heading two more experiments immediately followed in a 32-in. hole and a 22-in. hole, by $\frac{1}{2}$ in. Into the former hole $1\frac{1}{2}$ pellets were put, and into the latter 1 pellet only. These two charges were fired in the same way as the first experiment. The result in both cases was most satisfactory. To do more and better work was impossible.

The next trial came off in another heading on the same gallery. The rock in this case was hard and of schistose character. The respective holes were 24 in. and 18 in. in length, by 1 in. In the former $1\frac{1}{2}$ pellets were put in, and in the latter 1 pellet. After the explosion no results were shown in either case. Both holes were re-charged; the 24-in. hole with 2 pellets, and the 18-in. hole with 1 pellet. The one pellet charge did its work thoroughly, but the two pellet charge showed no results. At this point one of the miners employed on the heading told Mr. Parry, the explosive instructor, he would do the work with a charge of 24 pellets of dynamite; 24 pellets of dynamite were put in, and the charge was exploded, but with no results. A charge of $3\frac{1}{2}$ pellets of gelatine was next put in; the charge on being exploded showed again no results. The hole at the outset had been found fault with, and it was clear by now it was an ill-planned hole, being too flat for the work assigned. This hole, therefore, was given up, and wisely so too. In the next heading went to a lode was got 18 in. long by 1 in., drilled in very hard rock of a cherty nature. A charge of 2 pellets were put in, which did the work intended well. This last charge completed the experiments of the first day. Although we returned with a motive to the smoke immediately each blast went off, and remained in the smoke for a couple of hours, yet we experienced no headache, which is too frequently the case under similar circumstance in smoke from dynamite.

On the following day a series of experiments were again gone through, which proved equally as successful, if not more so, than those of the previous day, substituting on this occasion tonite detonators, instead of dynamite with dynamite primers; on the whole, the experiments were highly satisfactory. Once the mining world is made acquainted with the merits of this wonderful new explosive dynamite, in my opinion, will very soon be driven out of the market. Penning, June 11. AN OBSERVER.

LEAD REPORT.

SIR,—The strong demand that existed a short time ago has quite faded away, and to effect sales lower prices in every case have to be taken, as the manufacturers complain sadly of the want of orders. Newcastle-on-Tyne, June 15. STOCKS.

COST BOOK, MINING SCHOOL, SOUTH DEVON DRESSING.

SIR,—If nothing else has been gained by the correspondence under the above heading in the Journal, it has clearly proved the advantages of cost-book management over that of limited companies. Under the same resident agent, with Capt. T. Trevillion as manager, the same mine, with a lode only worth 20¢ per fathom worked as a cost-book mine, paid dividends at the rate of 40 per cent. for years upon the whole capital of the company. As a limited company, with a continuous lode worth 50¢ per fathom, or 30¢ more value than when paying 40 per cent., the mine pays no dividends, and barely pays the cost of working. The royalty under the cost-book was 1-15th, but under the present limited company it is 1-24th. Under the cost-book there was a committee of practical shareholders, whose experience showed them that the agent under Capt. Trevillion was very useful in that position, but totally unfit to manage. Had the hints thrown out at the time the purchase was made after the death of Capt. Trevillion been acted upon, the unfortunate sacrifice of ore might have been avoided. There are scores of agents, who as second men, acting under a good practical manager, are most useful and deserving agents, who would as managers destroy any mining property. It is not their fault if they are misplaced as managers. A practical man as bold and as determined to have right done as Capt. Trevillion would quickly restore the South Devon Mine to its position as Brookwood or large dividend paying. Though no longer a cost-book mine, why not adopt again the principle of such visiting agent. Give him the management, releasing the present agent from his awkward position of responsibility, which he feels and knows better than all other men he is unfit for, and would gladly coincide with such an arrangement. Do not reduce his salary, and do not hesitate to pay the second man as manager well, and the board of directors will have the thanks of the shareholders for commencing with a saving of 500¢ a month, and by a very trifling outlay upon one or two points west more than double any returns that can at present be made, and give such dividends as will satisfy every shareholder far

better than any reporting upon rich discoveries east or west. I partook of the substantial dividends under Capt. Trevillion's management of Brookwood, and gladly would I share in such again through any London office.—London. A SHAREHOLDER.

NORTH CORNWALL MINING ENTERPRISE.

SIR,—In how many instances do we not see failures from want of sufficient capital fully to prove and work mines which present good shallow indications of rich mineral deposits in depth—such mines are numerous in both Cornwall and Devon. This remark will apply in respect of several mines in North Cornwall, particularly to one—Pengenna Silver-lead Mine, in St. Teath, which contains lodes carrying very rich ore, but which have never been proved in depth. The Old Treburgett Mine, notwithstanding it contains abundant evidence of rich ores, has never been properly worked all through (with the exception of the last working), the want of sufficient capital and the last working under a limited company was discontinued for reasons unconnected with the value or prospects of the mine. This is not the question to which I wish, however, to direct your attention. It is this—provided adequate capital is raised in the first instance, and that applied with judgment in working mines in the mineral belts of strata in North Cornwall, am I justified in believing that success will attend the operations? Some 25 years ago much attention was drawn to the district referred to, when the late Mr. Procter, of Launceston, and others formed several companies to work the silver-lead lodes in St. Teath and St. Kew. They were weak companies, and all they did was simply to spend money wildly above ground in erecting engines without having first sunk on any lode 20 fms. deep. Your correspondent, Capt. George Spargo, in your issue of last week, says that some of the lodes of this district yield antimonial silver ore, realising over 85¢ per ton. This is perfectly correct, and, if I am not mistaken, he refers to a mine in the parish of St. Teath, formerly known by the name of Wheal Sampson, or Bound's Cliff. It was here that in driving a level near the face of the cliff the miners cut into a small bonanza of very rich antimonial silver ore. I have seen the workings at Wheal Sampson, and also at the adjoining mine, Tregadock, the lodes of which are well defined masterly silver-lead lodes; but here again the parties who worked these mines last have never reached the intersections of the lodes with each other or with cross-courses, which pass through both mines, and where, as a rule, the largest deposits of mineral are found. They have driven towards such intersections, which are points of the greatest importance whenever the mines are again worked, as they fully deserve to be. There is one thing, however, I hope for—that when mining is commenced in this district it will be based upon honest and truthful statements—nothing more need be said to induce capitalists to come into the district. As to Great Onslow Consols, in St. Breward, Mr. Gregory, in his letter to the Journal on the subject, says that he differs from me as to the manner in which the mine was worked. He approves of it; I do not. Still I venture to think that no practical miner would ever sink the main shaft on the top of a hill of great height, when he could bring in an adit level from the lowest point near the Camel, on the course of the great lode, which on its reaching a point under the shaft referred to would be about 50 fms. deeper than the present depth of 122 fathoms, and would be, it is believed, in that lirage to a large extent passing through much rich copper-bearing lodes. There is no adit level at this mine; all the water was pumped to surface.

It is no fault of the mines, but of the miners, that the Great Onslow Consols is not a dividend-paying mine to this day. The south lode, to which your correspondent refers, is a very promising one indeed, bearing a heavy mass of rich gossan near the surface, and in congenial strata. I hope he will be successful in getting it properly worked. I am told his liberal landlord, Sir William Onslow, Bart., has re-organised Onslow Consols at 1-24th dues, and also Hangar Wood and Wood Park setts. If so he is to be commended for his liberality and encouragement of mining. I not only hear this, but I also hear that Mr. Gregory is asking such a high figure by way of premium for the mine that no company is ever likely to be satisfactorily formed. If this is correct I must say that is very unwise on Mr. Gregory's part. It is true that he has spent some hundreds of pounds in driving on the course of the lode and erecting some inexpensive machinery, such as is totally inadequate for the full development of the south lode; but his immediate object should be to get the mine worked by adopting liberal terms, like his landlord. Too many mines are now floated under heavy premiums in cash and free shares. This is not as it should be. It is practically impossible to fix the sum which a mine is worth, whether or not the ore ground is open for inspection; and for any mine agent to report that such and such mine contains such and such quantity of minerals valued at hundreds of thousands of pounds is pretending to knowledge which cannot possibly be possessed.

In conclusion, I can only say that both Captain Spargo and Mr. Gregory have mineral properties in hand which will either be marred or made by the way in which they are dealt with, both rich in silver-lead and copper respectively; but the important question is, how shall it be raised to surface? In only one way can this be done—with adequate capital and good management. June 13. A MINER FROM WEST CORNWALL.

AN EXAMPLE TO DIRECTORS.

SIR,—If all directors of public companies, at least of those whose properties lie within the limits of the United Kingdom, adopted the very business course lately taken by the board of the Tresavean, the East Wheal Rose, the Old Shepherds, and the Mount's Bay Mines, it is probable that we should hear less of those mining failures which are continually being alleged to the discouragement of this industry. These gentlemen, with Sir George Innes at their head, have recently made a tour of inspection of these various mines, and occupied several days in making a minute examination of the preparations that are actively going on for the resumption of work.

They first visited Mount's Bay Consols, which though called by one name really comprises three distinct sets. The Trebarvah is a going concern with a 50 in. Cornish engine, and the whim-engine will be ready to go to work within a fortnight from date, and returns will be made in about a month. At Sydney Cove there are seven copper lodes, and the Great Wheal Vor lode, from which 2,000,000¢ worth of stuff has been raised, goes right through the sett. The Penbro shaft is down in firm ground 60 fathoms. It is very wide, and the deepest points are the richest. The last three men who worked there returned 300¢ worth of copper in a month. When more powerful machinery was wanted the old workers had not the capital to provide it, and to this circumstance, so fortunate for the present company, is due the fact that it ceased to be worked.

From here the directors proceeded to Old Shepherds Mine, where the interesting ceremony was performed by Sir George Innes of starting the engine. The shaft will go down between two rich lodes, and then a cross-cut will be put out east and west, when lead will be broken within a month. The main adit is cleared in North and South Shepherds 300 fms., and within 10 days lead will be broken from the end of the adit. The engines are purchased and will be erected with all speed. The sidings of the Great Western Railway are being constructed. Green's dressing machinery will be on the mines in the course of a fortnight, and it is believed that many thousand pounds worth of silver-lead is lying amongst the so-called "refuse heaps."

A very interesting visit was paid to Tresavean, where the directors went underground to the 60 fm. level. The whim-engine has been purchased and erected, and the engine-house for the large pumping engine is erected, the material used being solid granite. The shaft is sunk in firm ground and acknowledged to be one of the best in London. Capt. Teague, in his report, said of this mine that it has a lode which will yield returns almost immediately. The last company worked for copper and quite neglected the tin, and even as regards the copper the lode from the 65 to the 175 stands intact. This is the testimony of Capt. Priks, who worked in the mine until it stopped. This, he says, will pay large dividends on the whole of the capital for years independent of the tin.

The results of this tour of inspection were in the highest degree satisfactory. The works were found in a more advanced state than was expected, and there seemed to be on the part of the local agents

and of all the employees an earnest desire to do all that was possible to bring the various mines to a success worthy of their past history and of the renown of the district. INVESTOR.

THE PRESENT OUTLOOK, AND THE SIGNS OF THE TIMES.

SIR,—The market for tin is indicative of the accuracy of our forecasts, and it does not require a very far seeing correspondent to anticipate correctly the future course of events. Although the Ministry would not describe the Irish difficulty as "much ado about nothing," yet the Irish have always appeared worse on the surface than they have been in reality. It appears to us that Her Majesty's Opposition, as well as Her Majesty's Ministers, are bent on fair play for Ireland, and if that be so the irreconcilables will be left out in the cold, and their injustice will be apparent to none more than to the misguided people whom they have been making their tools. This question seems to be the difficulty of the hour, and when this is disposed of (as it will be, and that perhaps speedily) there will probably be nothing in the political horizon to disturb the capitalist. The most remarkable feature of the moment in business circles is the absorbing interest in new mining ventures. This may be deplored, as it is, by the steady-going old fashioned legitimate mining men, but the circumstance must be taken as a sign of the times, and authorities will have to guide rather than attempt to stop the current.

The gold mining mania has received a fresh impulse from the momentary flash of encouragement caught by the outlookers from Glasgow, but those of us who have not been unaccustomed to sudden surprises in mining take but little notice of the incident. Caution seems to be very significantly called for by recent events as to Cornish mines. Some of us may be prejudiced against the Limited Liability Act, which has so far proved itself to be a signal failure as far as mining in Cornwall is concerned. This passing comment is necessary, because it is stated as a reason why a prominent mine should be incorporated under the Limited Liability Act that outsiders should be enticed to it. If this is the real reason why the Limited Liability Act is patronised, then its advocates do very wrong in their own interests by letting the public into the secret. There was a time, which some of us will never forget, when a very celebrated business—Overend, Gurney, and Co.—was turned into a limited liability company. Afterwards came Black Friday—we think it was Friday—at any rate it was very black, and such a panic we never saw, and hope never to see again.

If the limited liability advocates will come forward, and give the public a fair chance, they will have no opponents; but we venture to say there is not a Cornishman living, whose reputation is worth anything, who will not condemn proceedings with which the public have now become so familiar. We refer to no particular company, much less to particular individuals, and we should not make these observations had they not have been called for by the reason alluded to above for adopting the Limited Liability Act, but at the same time if the new schemes brought out recently turn out to be successes, no one will be more pleased than the writer of this article. A proposition was made to turn West Seton into a limited liability company. How did the adventurers meet the proposition? Supposing any persons desired to turn East Pool into a limited liability company what reception would they get at the East Pool meeting? The same question applies to Dolcoath and to every thoroughly prosperous mine in Cornwall. If the mover got a second he would be exceedingly fortunate, for he would not get one *bona fide* shareholder to support him.

Now, notwithstanding all this, we are asked to advocate the claims of limited liability companies. How can we do it? The method is very simple. We merely say to promoters—take nothing for your property until it is proved to be valuable by results, but let every farthing of the capital subscribed go for the working of the mine, and you subscribe with everybody else to such capital. If the mine is worth anything you will get your profit in the premium, and if it is not do not attempt to bring it out, but pursue some honest vocation instead.

Take the case of a suspended mine, where a large amount of money has been laid out, but which is becoming a burden to the proprietors because they have not money to carry it on, or perhaps have not the inclination to do so. What is to be done? Are they to receive nothing for all their past outlay? Certainly they are to be paid to the uttermost farthing if possible, but if they apply to outsiders for capital they ought not to be paid until it has been proved whether their property is worth anything or not. Let them take their advantage out of the first profits of the company, subscribing with the public to the working of the mine. Than this nothing can be fairer. We recognise and acknowledge the truth of the maxim that "all must live," and there is no one who knows the anxiety and risk of promoters who will not maintain that they ought to be paid fairly, but their remuneration ought not and must not bring discredit upon an honourable profession. JOHN B. REYNOLDS.

37, Walbrook, London E.C.

CROWN LEASES AND MINE ADVENTURERS.

SIR,—Is there not something rotten in the state of England? Ought it to be possible in this latter half of the nineteenth century for the Crown to have the power to serve anyone as it served Messrs. Watson Brothers in the case referred to by that firm in the *Mining Journal* of June 4. Really, Sir, it appears almost incredible that the representatives of the Crown should not only have the power of thus acting, but should have the audacity thus to perpetrate what appears to me to be an absolute injustice. It is this high-handed and unfair dealing in connection with other similar dealing with speculative industries that has sent tens of millions of money and tens of thousands of our most skilled miners and artisans out of this country.

What we have lost other countries have gained. The difficulties of obtaining mining sets on fair and equitable terms in this country, not only from Crown or Coronet, but from almost any landowner, are exceptionally hard, difficult, and expensive. The whole matter of licenses, leases, dues, &c., ought to be enquired into by a committee of competent men, and great alterations made or an entirely new line struck out. Can we, by any stretch of the imagination or by any possible combination of words, make the Crown the protector of Watson Brothers in the case referred to by them. This world it is plain enough can get along perhaps better with many changes, but it cannot do or would be badly off without such mining energy and enterprise.—Cornwall, June 11. M. J.

OVERDRAWN BANKING ACCOUNTS.

SIR,—Everyone, of course, heard with regret of the stoppage of the Union Bank at Helston (Vivian, Grylls, Kendall, and Co.), the leading partners in which had not for a long time taken any very active part in its management. Whilst everybody regrets the failure of public institutions like banks, still these stoppages may in the end be productive of good, for we cannot fail to remember that both the Helston Union Bank and the Cornish Bank made advance to Cornish mines, which were altogether unjustifiable, and which over drafts were made in several cases without the cognizance of the great body of the adventurers. Chief and foremost in these unbusiness-like proceedings was the Union Bank of Helston, which allowed Carn Brea Mine to overdraw its account nearly 30,000¢ without the knowledge of the adventurers, and knowing also that for years and years nothing was ever charged to the shareholders in the way of "interest and commission" for these large overdrawn accounts. Tincroft also was giving continuous dividends for a long period, although largely indebted to their bankers, such overdrafts being never mentioned in the statement of accounts sent out every quarter, and of which the managers of the bank were fully aware. A sum of between 3000¢ and 4000¢ was it will be remembered charged to the Tincroft adventurers in one lump for interest and commission. Every honourable man must know and feel that such overdraft and bank charges if fairly contracted ought to have been made known to the adventurers at their quarterly meetings whenever they took place. I maintain that such proceedings were altogether unjustifiable. If bankers, instead of carrying on their own legitimate business as bankers, become speculators and financiers, they must expect to reap the reward of such financing, which is altogether beyond the bounds

of what any honourable banker would enter upon. It is worthy of notice that the late Mr. John Michael Williams, an able financialist and proprietor of the West Cornwall Bank at Redruth, laid down the same rule with regard to overdrawn mine banking accounts, insisting that the overdraft should be mentioned in the cost-book at the regular quarterly meeting of the adventurers. If this had been done at Carn Brea, Tincroft, Dolcoath, West Basset, and other mines I could mention probably we should never have heard of the collapse of the Cornish Bank or the Union Bank of Helston and other business concerns which were engulfed in consequence of their stoppage. It is only right to state that when the Messrs. Bolitho took over the Tincroft and Carn Brea accounts at the request of one or two of the leading shareholders, they did so with the proviso that the accounts in future should be regularly charged up, and that such banking overdraft, if any, should always be stated publicly at the meeting and mentioned in the accounts sent out.

AN ADVENTURER IN CORNISH MINES.

CORNISH CHINA CLAY

SIR,—Will you allow me to correct an error which inadvertently was made in my statements in a recent number of the Journal regarding exports of china clay and stone from Cornwall and Devonshire? I am informed by the harbour master at Padstow that the quantities given as exported from Padstow include those given as shipped from Wadebridge, so that the exports from the latter place, a sub-port of Padstow, are included twice in my table. The error may be corrected by simply striking out Wadebridge from the table altogether.—*Leadenhall-street, June 6.* JAS. QUICK.

EAST WHEAL ROSE.

SIR,—It appears by a financial contemporary, corroborated by the Lyon King-at-Arms, that our Chairman is not a baronet, and that his right to the baronetcy "has never been recognised at the Lyon Office." Now, as I am a very large shareholder, I think that an explanation is at once required from our Chairman, and if such is not forthcoming my friends (who are large shareholders) and I will convene a meeting to insist upon his retirement, but hope a satisfactory reply will be given.—*London, June 15.* A LARGE SHAREHOLDER.

EAST WHEAL ROSE.

SIR,—Your correspondent "Reader" appears to misunderstand my last letter. I did not mean in any way to represent the Chairman as attacking the writer in the *Mining Journal* of 1857, but merely someone who in the present day has put forward the same theory. That which appeared impracticable in 1857 may be quite possible in 1881. Whether this is the case with regard to the reworking of this mine I do not pretend to judge, but I presume the Chairman had professional authority for what he stated. He certainly did not say that iron is cheaper than wood, but merely that it can be economically used to advantage and to very much more purpose—meaning, I presume, in such a mine as this where, according to your correspondent, they formerly "buried a forest every year." If the date of the waterspout is really 1846, then of course the statement in the *Mining Journal* of May 9, 1857, that it was in 1842 must be an error. Any one would imagine from your correspondent's letter that this was so disastrous to the first company that it never paid dividends afterwards, but this would be a mistake. "Reader" says the second company bought the mine for 13,000*l.* I know that it is so stated in the *Journal* for April 19th, 1856, but I think that this, like the date of the waterspout, must be an error, for in the *Journal* for Feb. 4, 1854, it is stated that the capital of the new company was to be 36,000*l.*, half of which was to be paid for the mine. The working capital was, therefore, but 18,000*l.*, and I have never seen it disputed that a very large part was spent in the vain endeavour to sink a shaft in the lode instead of in the country. The present company, therefore, starts with at any rate two advantages over the last one. It knows that it is useless to attempt to sink a shaft in the lode, and it has a working capital, not of 18,000*l.*, but of 60,000*l.* W. A. F.

ROMAN GRAVELS MINING COMPANY.

SIR,—By a statement in last Saturday's *Journal* I see the directors of the Roman Gravels have declared a dividend for June 16 of 5*s.* a share, which last year was paid in April, and it seems to me without any patent reason for the alteration in the time of payment. Meanwhile I am assured that the state of the mine is most promising, and seeing the announcement, as I do, that ore is being continually sampled for sale, I certainly, as a shareholder, did not expect the same amount of dividend for six-monthly as for four-monthly payments. Last year it might be explained by the fact that after non-dividends for three whole years, in consequence of depression and the oft-named and, I think, exaggerated failure of the Burry Port Smelting Company; but now, how with brightest prospects and improving trade the half-yearly dividend should be the same only as the four-monthly is a suggestive matter of surprise. The directors may, doubtless, say its prosperity lies in the increasing value of the shares, but this to those who do not always want to be shifting securities is of little value. Regular dividends without fluctuation would satisfy better. A DISCONTENTED SHAREHOLDER.

WEST AND SOUTH PHENIX MINES.

SOUTH PHENIX.—On going over this district I was glad to see their new pumping-engine nearly ready to work, and very soon a large number of men will be employed breaking tin and sending it to surface. In cutting down the new shaft they met with a run of tin branches 12 ft. wide, all good paying work, which appears to be standing intact to surface. This, together with the known productiveness of the lode in the 70, augurs well for the success of the undertaking. Marke Valley people, I see, have commenced working on the Wheal Jenkin tin lode, not far from the South Phoenix boundary. This lode was worked on at a shallow depth many years ago through the whole extent of South Phoenix limits, and will form a junction with the Grace Dieu lode in the western ground, at a point where they will be intersected by the West Caradon cross-courses, about which such large quantities of ore were raised in that mine; and, from the evidence of ancient workers on the back of Wheal Jenkin and Grace Dieu lodes in the western ground, it is very reasonable to suppose that a good mine is to be found at this point as well as in South Phoenix.

WEST PHENIX.—I was glad to see that the sinking of the engine-shaft is being pushed on rapidly by 12 men, and relieving in place, and from the easy nature of the ground I should hope they will be down to the required depth for cutting into the lode in another month or two. Beautiful faces of copper ore are being met with in sinking the shaft alongside of the lode, which indicates the continued richness of the lode as seen in the 17, and there is every reasonable hope of a good course of tin and copper being met with at a deeper point. Very rich stones of tin, 28 lbs. in weight, more than one-third black tin, have been taken out in the last few days from the stuff which came out of Vatchers' shaft in this sett.

SHAREHOLDER.

BEDFORD UNITED MINE.

SIR,—Never in the history of mining in this district since the discovery at Devon Consols has a better lode been seen than the Bridge lode, now being developed in this sett. After a delay of two months to complete the necessary shaft work to the 20 fm. level, the drive from this level has been resumed in a splendid lode of grey, black, and yellow copper ore, indicating a rich and continuous run of ore for half a mile, for the lode is nearly a mile long in this sett. Sinking the shaft below the 20 will be watched with much interest, as the lode will be resumed sinking on a course of ore worth 50*l.* per fathom for length of shaft, increasing in value as depth is attained, and the lode both east and west of the shaft is worth 20*l.* and 25*l.* per fathom, thus making an aggregate value of about 1000*l.* per fathom. I repeat, without fear of contradiction, that a lode of such value has not been discovered in the district since Wheal Maria lode was found 40 years ago, and as the Bridge lode is a parallel one south, and adjoining the Devon Great Consols, results of equal magnitude

may be fairly anticipated, especially as the gossan part of the lode in appearance is identical, and equally characteristic of great deposits of rich ore. Those who are seeking a safe investment in mines will do well to purchase shares in the Bedford United at their present price.—*Newbridge, June 15.* HECTOR.

BEDFORD UNITED MINE.

SIR,—Among the large number of companies in which the public are asked to invest their money it surprises me very much that Bedford United should be apparently overlooked, for I have been at considerable pains to make myself acquainted with the merits of this mine, and I will venture to say there is not another copper mine in Devon or Cornwall which has better prospects, few so good. In the first place it is a limited liability company, so that shareholders need not be nervous about the risks they incur. At the meeting on May 28 it was shown that nothing could be more satisfactory than the state of affairs, both financially and with reference to the development of the mine. After paying all expenses there was a balance in hand of 675*l.* All the machinery has been erected and paid for; nearly 400 tons of copper ore having been raised since last November. The engine-shaft is now down the required depth for a 20 fm. level, and the ends are being driven east and west, worth 25*l.* each per fm. In a few days sinking will be resumed in a lode worth 50*l.* per fm. for the length of shaft. On the North lode the bottom ends are opening out good profitable stopping ground, and are extended east nearly parallel to where the Marquis lode made its immense riches. The lode in the 127 east is worth 12*l.* per fathom, and is improving. Three stopes in the back of this level are worth on an average 9*l.* 10*s.* 6*d.* per fathom. Now, with three points worth in the aggregate nearly 1000*l.* per fathom, a good profit should be made. In addition to this the ground opening out by the driving of the ends should soon be available for stopping, which would give a profit of 20*l.* per fathom, at least. Then there are 417 forfeited shares which, at present low prices, would realise 834*l.* From these figures I think we may fairly calculate that the shareholders may look for a dividend at the next meeting. We shall then see the shares at a much higher price than they are at present. A SHAREHOLDER.

June 15.

MINING IN THE GUNNISLAKE DISTRICT.

SIR,—Sometimes, as "A Miner" observes, lodes do not appear to hold out much hope of success in depth, but appearances oftentimes deceive the best of men, and it will be found on enquiry that nearly all the great mines in the West of England have at some period or other been worked and abandoned. In the Gunnislake district the two mines which have been tried in depth have both proved productive. On the other side of the Tamar the Old Wheal Marin—where the first great gulf of ore in Devon Great Consols was discovered—was formerly abandoned at the shallow depth of about 20 fms. from surface, and Wheal Crebor was also given up some half-century ago when only about 50 fms. deep. With modern machinery and appliances mines can be developed in depth with comparative ease and at much greater speed, and the neighbourhood of Gunnislake, it is to be hoped, will now be effectually explored. OBSERVER.

GUNNISLAKE (CLITTERS) MINE.

SIR,—The questions asked by "A Shareholder" in reference to this mine in last week's *Journal* are pertinent and practical, and, therefore, deserve the attention of every shareholder who is anxious to see the mine worked for the benefit of the present generation of shareholders. If the responsibility of the management were put into the hands of an agent who would live on the mine and put all his time to the company's welfare, and not to the interest of half-a-dozen others, besides farming, I think the mine could be worked so economically and in such an energetic manner as would pay the shareholders handsome dividends. From all the information I can gather we must not expect a dividend at the next meeting. I trust Mr. Secombe will give a satisfactory reply to the questions asked. ANOTHER SHAREHOLDER.

GUNNISLAKE (CLITTERS) MINE.

SIR,—In reply to "A Shareholder's" interrogatories in last week's *Journal*, permit me to say that I think it only fair that such questions should have the writer's name appended thereto. "A Shareholder" is a very vague term. It may, or may not, be one interested in the above mine. A reference to my letter in a previous issue of the *Journal* will show that I was desirous of the Clitters shareholders obtaining the fullest possible information relative to the extent and capabilities of the sett previous to the meeting shortly to be called to determine on selling a portion of it. Thus they would be prepared beforehand to discuss the matter intelligibly and decide without these vexatious delays. To such enquiries I should have been pleased to give any information I might have possessed. With the working of the mine I have nothing whatever to do; this is in the hands of a committee, duly elected by the shareholders, and the company's agents, who together should be fully competent to manage the working of this mine. Doubtless the question of a new shaft and larger water supply is worthy of legitimate discussion and should receive early attention. I fail to see the necessity of expending a large sum of money, perhaps 800*l.* to 1000*l.*, for boring machinery at present. Under no circumstances is it required, unless it be determined to put through a new shaft.

The adoption of some method for letting workmen into and raising them from the mine is of paramount importance, and should receive immediate attention. If, as is stated, in mines of 200 fms. deep, 20 per cent. in labour is saved by this means, as compared with men being obliged to climb the distance, 150*l.* expended in this manner would prove the best investment of capital that has been made, even in this mine, for many years. If the saving be only 10 per cent., it means 50*l.* saved on a monthly labour-cost of 500*l.*, or 400 per cent. per annum on the outlay.

"A Shareholder's" remarks in reference to dividends seem rather premature, seeing that the mine has only recently re-entered the Dividend List; he might have waited until the end of the year before settling it at 3 per cent. It speaks volumes for this mine that it is able to pay dividends at all, when such mines as Devon Great Consols and South Caradon, hitherto the greatest copper mines of the two counties, are obliged, through the unprecedentedly low price of copper, to suspend dividends indefinitely.

Altogether, "A Shareholder's" queries seem intended to be derogatory; a careful reading between the lines leads me to think that though "Some traces of Eden they may seem to inherit," yet "The trail of the serpent is over them all." R. C. SECOMBE.

Tucistock, June 14.

PERKINS BEACH MINE, SHROPSHIRE.

SIR,—Work has been begun at this mine under the auspices of the new company, and I hope all the operations will go straight on to success. At South Roman Gravels also a new shaft has been started, and the explorers have my good wishes. The formal commencement of the Liverpool water-works at Llanwddyn is fixed for July 11, when the Earl of Powis will lay the foundation stone of the great embankment across the valley of the Vyrniew. The importance of this great work can hardly be over-estimated. When will the London authorities rise to a true conception of the sanitary needs of the vast population under their care, and go in for a gravitation water scheme worthy of their resources and sufficient for their wants.

A new invention for raising sewage water or other liquids, patented by Mr. Kidd, of Wrexham, was tested last week at the Oswestry Sewage Works with perfect success. The apparatus appears to be at once simple, inexpensive, and self-acting. It is described as consisting of a steam cylinder or pipe 12 in. in diameter and 3½ ft. in height, an outlet valve 8 in. in diameter and an inlet valve 11 in. square, or equal in area to that of the cylinder. The total amount of space occupied is 5 ft. + 1½ ft. The sewage water or other fluid rushes through the inlet valve with a velocity due to its head of pressure, and on filling the cylinder it is instantly ejected by the steam acting upon its surface, and the mechanical arrangements are such that the action is almost continuous. The advan-

tages claimed for the invention is that the apparatus will dispense with the use of engine, engine-house, foundations, and intermediate machinery, and that one small boiler will do for several machines. Corporate bodies and engineers interested in the question of raising sewage will do well to visit the Oswestry Works, and see the apparatus in work there. Wrexham is thus becoming as much a centre of sanitary as it is of mining operations.

GREAT POLGOOTH UNITED TIN MINES.

SIR,—Being in the neighbourhood of St. Austell curiosity led me to visit the Great Polgooth United Tin Mines. I had succeeded in obtaining an introduction to Mr. Richards, the able and courteous captain of the mines, and had thus the best possible opportunity for making a thorough inspection. The result was so satisfactory that I purpose becoming a shareholder in the company. In the new ground lodes equal, if not superior, to any of the old workings are being opened up, and are of the finest description. From the energy displayed in the working of the mines, and in the preparation for the erection of the machinery, which I understand will be delivered at once, I am certain that this grand mine will return handsome and increasing dividends before many months. I have no interest as yet in this mine, but am simply—

AN INTERESTED BUT INDEPENDENT OBSERVER.

White Hart Hotel, St. Austell, June 16.

GREAT WHEAL POLGOOTH.

SIR,—I was pleased to see Mr. R. Symons's letter in last week's *Journal* confessing himself to have been in error as to the sett and whereabouts of the Great Wheal Polgooth. But I do think such an acknowledged authority as Mr. R. Symons ought to have known better than to write such a letter as appeared in the *Journal* of June 4, as I have reason to believe that it has done a deal of mischief, not as regards the Great Wheal Polgooth mining sett, but to throw discredit on the directors of the company, who are all men of responsibility, and whose characters will bear the strictest investigation, as that letter has done. I think he ought to know more about the district—as he professes in his letter he does—and not go by "hear says" of what he learns in London from Captain anybody, not even knowing the water-courses of the county. I trust he will be more careful in future than to throw discredit on any set of directors or their prospectus—even going so far as to insinuate that the prospectus is false and untruthful. I would refer Mr. R. Symons to the directors, and they will inform him what part is to be divided for 50,000*l.* to be called the Great North Polgooth, and would recommend him to take further interest in it. By so doing he will get to know more about the district and its surface. June 15. A SHAREHOLDER IN GREAT WHEAL POLGOOTH.

GREAT WHEAL POLGOOTH.

SIR,—Upon the invitation of a friend I visited this mine to-day, in order to satisfy myself as to the character of the tin lodes, respecting which so much has been said and written. Amongst the lodes in the sett there are two, called respectively north and south lode, separated from each other by an elvan course about 30 ft. wide. The north lode varies in width from 3 to 4 ft., and the south lode from 6 to 10 ft. I desired a miner to break off some portions of the north lode, which I caused to be bruised on a shovel and "vanned," and which I found to contain at least 50 per cent. of tin ore—black tin. If the yield of the tinstone should be found to be uniformly of that quality, of course the mine must be remarkably rich. The specimens given me were, however, not selected, but taken casually. I am satisfied from the assays that the mine is rich, and the ancient workers must have found it valuable to induce them to remove nearly all the lodestuff from the surface to the adit level, and in two or three places, where there are engine-shafts, about 20 fms. below that level. Tinstone is very plentiful at and around the old mine waste, and can be picked up in the roads—in fact, the metalling of the road near the waste is partly composed of tinstone. I am, therefore, satisfied that the shareholders have a good property, and that to sell their interest at a sacrifice would be unwise. There are eight men at work in preparing the lead for the water-wheel, and four men upon the tunnel, through which the water will pass to the wheel. The water from the river passing by St. Stephens village is ample to drive a wheel of 60 ft. diameter and 8 ft. abreast, in addition to which there is the Lanjeath tributary.

I see no reason to find fault with the promoters as to the prospectus, except their geographical ignorance in describing the position of the property; but that does not show that they had any intention to deceive their readers. The character of the mine justifies the description given of it, and the extent of the present sett is ample for two mining companies. In my original letter I did not say a word against the mine, I merely stated that the description was vague and indefinite.—*Turo, June 16.* R. SYMONS.

GREAT WHEAL VOR UNITED MINES.

SIR,—My family having been more or less connected with the above named mines for the past two generations, the various letters which have recently appeared in the *Journal* have much interested me. Personally I do not know any of the correspondents who have been writing for and against these mines; nor do I know any of the promoters of the new company about to be formed. I beg, however, to say that in my opinion "Miner" is quite right in stating the mines are not proved to the east of the great cross-courses (which, by-the-by, is renowned for the great riches it has made in other lodes to the north and south of Great Wheal Vor). My late father, Capt. W. Bugelhole, of Great Alfred and other mines, was sounded as to taking the management of Great Wheal Vor when Capt. Craze left, but declined it on account of his advanced age (he knew the mine thoroughly from a boy), and I remember him telling me at that time that if the adventurers would lay open the mines to the east of the great cross-course, he believed they would get a monthly return of tin of at least 70 tons. I may also state that my grandfather was agent at Great Wheal Vor for many years, and I have no doubt but that Mr. R. Symons can remember the rich bunch of tin he discovered, and which yielded such enormous profits. If the mines are fully laid open to the east of the present deep workings I have no doubt but its grand old history will repeat itself. West Providence Mines, St. Ives. WM. BUGELHOLE.

THE CALLINGTON DISTRICT, AND ITS MINES.

SIR,—I see there is no less than eight of the lately suspended mines started afresh in this district, and I believe a great many of them will, with legitimate management, prove very remunerative to the shareholders. The great gem of the district at present appears to be that of Trebartha, the lode producing 8½ cwt. 2 qrs. 12 lbs. of tin to the ton of lodestuff. I find there is still other mines about to be reworked in the district ere long; one of them has been very recently obtained under most favourable terms. There has been silver-lead, copper, and arsenical mundic returned from this property, but like many of its neighbours has been badly treated. What has been done has been mere surface scratchings. There are 40 fms. of backs to be obtained by tunnel or adit driving, as there are two hills and a never failing stream of water running through the entire length of the sett between the hills. The party that has this property is open to join an influential party with the view of forming a company for working the same. The situation is one and a half mile from the town of Callington. JOHN BUCKINGHAM.

BULTHEY MINE LEAD AND BARYTES WORKS.

SIR,—Referring to a paragraph in the Supplement of the *Journal* of the 11th inst., signed "Barytes," and being in the district I visited the above works, which is situated about one mile from the Middleton station between Shrewsbury and Welshpool. I found the machinery in full operation grinding barytes, with a large galvanised iron building erected over same. From enquiries made of the agent I found it to be over 46 ft. long and 20 ft. wide. I also found on the works over 200 tons of barytes prepared ready for grinding, and from an analysis made by Professor Williams, of Liverpool, it was, I

ore. When the lode was first cut into they reported it 2 or 3 ft. of almost solid ore, but the lode proved to be 60 ft. wide, with ore and spar in alternate layers. This had to be cut through, and it was extremely hard, a considerable time was occupied in this work. The great deposit at No. 5, however, being so good, the greater part of the ore is so rich in No. 5, so that the directors are daily expecting a fund of ore. In the meantime, it will be seen from the accounts that the funds are low. He would add to this that the mine is worked down to No. 5 level by levels driven into the mountain, and at a cost of about £200 a month. Thus about 20 tons of ore a month would meet the cost. Above No. 5 level the agent had assured him there is ore ground that will take some years to break away, and if at No. 6, which is 15 fms. deeper, to find the ore good, the returns could be made; thus the directors might profitably wait. But he thought the ore in the mine as good as this, and which should no longer be neglected. In driving 6 or 7 fathoms on the course of the Hafna lode at the No. 4 level, the Fuchaslus lode would be met with at the junction. Then by driving in the course of Fuchaslus it would intersect two other important points, "Harker's hanging" and "Harker's heading," about which he would ask the agent to tell them something. Here at a small cost a rich mine itself might be opened. Again, by driving No. 4 level to the great deposit at about 20 fms. it would reach the end of the Hafna lode. These points are all connected in one month. But you may ask why have such important points been neglected? The fact is when the great deposit of ore was found at No. 4, in the Gorse lode they all thought they were at once going to have another Van; and under the best practical advice they could get they have spent very large sum of money in clearing and bringing up No. 5 level, over 300 fms. length, and in sinking a shaft from surface down to the 6, and now we look forward to a paying mine here. But upon this view show the value of the shares we shall be enabled to see from other points, and to show their importance. It must be said that the Hafna, Fuchaslus, and Harker's lodes are all well known rich lodes of the district, and all seem to centre and join together in Ereby Mountain, which has so often been described as a mountain of lead, and which he is sanguine enough to believe will turn out to be one of the richest mines in Wales; and it is because he believes so, and the directors believe so, that they agree to the division of shares and the raising the money that the

plan suggests. The agent was present, and would answer any questions as to the mine, which he assures us is improving, and he hopes will soon be in possession to realise 40 or 50 tons a month.

Capt. ROBERTS explained by a section of the workings the important points which they are now approaching. The old miners raised 100 tons of lead per month down to No. 5 level, and the No. 6 is now close upon the main body of ore. The balance-sheet and accounts were passed and adopted.—Mr. H. W. Lamb, the retiring director, was re-elected.

Mr. ASHMEAD (the auditor) stated that he had carefully examined all accounts. The books, in his opinion, were admirably kept, and he had certified to their accuracy.—He was re-appointed auditor.

The CHAIRMAN, in reply to a question, stated that he and his friends had the most perfect confidence in the ultimate success of the undertaking. They were now on the turning point toward the great success they had been so long waiting for.

The meeting was then made special, to pass the special resolutions for rearranging the company's share capital.

The CHAIRMAN said that, with regard to the special meeting for the division of shares, this question had been more than once brought before the directors and urged upon them. In fact, one or two meetings were held for the purpose of increasing the number of shares, but it was found, owing to the different amounts paid upon the three classes of shares, that there were legal difficulties in the way, and the idea was abandoned. Mr. Orlando Webb, however, who at that time pointed out as a lawyer these difficulties to the directors, has since matured the plan which had been submitted to the shareholders. In print it looks somewhat complicated and difficult to understand, but in practice it is simply this—every present holder of 1-1536th will receive 25 fully paid-up shares, which, although for the purpose of assimilating the different amounts paid upon the three classes of shares, and to get rid of legal difficulties, will present a sum of 20s. only as actually paid up, the shares it is expected will command at least 24s. and will equal 50s. for the present share. After allotting these shares under the new arrangement there will remain 6500 shares, 3072 of which will be offered *pro rata* to present holders at 1s. each as a bonus, and this will give the company a cash capital of 3072s., and a reserve in shares of 3528s. He concluded by formally moving the subjoined resolutions:—

1.—That the sum of 17,920s. having been paid up upon the 1536 shares, of which the company at present consists, such shares be sub-divided into 35,840 fully paid-up shares of 10s. each, representing the said sum of 17,920s.

2.—That the capital of the company be increased by the issue of 9160 additional new shares of 10s. each fully-paid, making the total capital 22,500s., in 45,000 shares, of 10s. each.

3.—That 3072 shares, part of the 9160 new shares, be offered *pro rata* to the present shareholders at the limited premium of 10s. per share, each shareholder being at liberty to take two of such new shares at 1s. each within a time to be named by the directors, in respect of every share now held in the company, and in default of the same being accepted by any of the shareholders within the time so to be named, that the directors be at liberty to dispose of the same to the other shareholders, on such terms as they may think proper, being not less than the premium of 10s. per share.

4.—That 1280s., part of the premium to be received from the sale of the said 3072 new shares, be applied in payment up in full of 2560 of the remaining new shares, and that the said 2560 paid-up new shares be added to the 35,840 shares mentioned in the first resolution, making together 38,400 shares, and that the same be divided amongst and allotted to the existing shareholders at the rate of 25 such fully paid up shares of 10s. each in lieu and satisfaction of every existing share in the company.

5.—That the balance of 3528 new shares be held in reserve by the directors to dispose of when and as they shall think proper for the benefit of the company.

Mr. O. WEBB seconded the resolution, which was put to the meeting, and unanimously agreed to.

The usual complimentary vote of thanks to the Chairman terminated the proceedings.

OKEL TOR COMPANY.

The first ordinary general meeting of shareholders was held at the offices of the company, Finsbury Circus, on June 10,

Mr. H. N. LAY, C.B., in the chair.

Mr. F. F. WILSON (the secretary) having read the notice convening the meeting.

The CHAIRMAN said—Gentlemen, as this is purely a formal meeting—the first statutory meeting of the company—at which it is not usual for any business to be transacted, it would not in ordinary course have been necessary for us to make any report, but under the peculiar circumstances of Okel Tor, no prospectus having been issued, the directors thought that it would be better to furnish you with a slight sketch, showing the position and prospects of the company, which the secretary will now read.

Mr. WILSON (the secretary) then read the report of the directors.

The CHAIRMAN: It may interest gentlemen present if I supplement the directors' report by giving a short history of Okel Tor, for the purpose of showing why it is now so valuable as compared with what it was in former years. The mine was first started with the view to cutting a possible lead lode. At the 20 a large lode was cut, now called the north lode, containing copper and arsenic ore, but on sinking from the 20 to the 35 the main body of the lode was missed though the following of a branch on the south part of the lode, separated from the main lode by a channel of kilaas 9 or 10 ft. thick. Operations were carried on for some years on this part of the lode, until the workings became too poor to yield copper in paying quantities. Cross-cuts between driven at the 50, 65, and 80 ft. levels resulted in the discovery of two lodes south, which for three years yielded an output of 150 tons of copper monthly, after which the samplings gradually fell off. But in the meantime tin had been discovered at the 65 and 80 ft. levels, stamps were erected, and I believe some 80000 lb. worth of tin was sold from the eastern part of the mine. The levels were, however, very far from the shaft, the distance to tram being some 250 fms., and the levels being besides badly carried, it was found difficult to get the tin with sufficient speed to keep the stamps supplied. The discovery of tin having, moreover, prompted the removal of the copper plant, further progress was arrested, and the mine came to a stop. The principal need was a new shaft east, and if this had been sunk it is certain the mine never would have stopped. Five years ago the property came into my hands, and neither labour nor expense, I may say, were spared in the endeavour to ascertain what Okel Tor really contained, since from the way in which previous operations had been conducted there was evident reason to suppose that more mineral had been left than had been taken away. This conjecture became a fact. We cut the main north lode 24 fms. from our engine-shaft, in which winzes have been sunk from the 20 to the 80, solid throughout. This is a magnificent lode, averaging 10 ft. in width, composed of arsenic ore, intermingled with copper ore for a distance of 60 fms., and for a depth of 60 fathoms. By this discovery a new mine west was, in fact, opened. The second discovery made was of a splendid lode in the eastern part of the mine, 200 fms. east of our engine-shaft, which averages 15 ft. in width. This has been proved for 70 fms. in length and for 30 fms. in depth, from the 50 to the 80; it is still holding coming back west, and for aught we know may go right through the mine. The credit of these discoveries belongs to Capt. Bulford, upon the possession of whose services the company is to be congratulated. Coming to the surface we have sufficient plant to produce 100 tons of tin, and 100 tons of copper per month, and as soon as the tin plant is erected our returns of tin, copper, and arsenic will be largely increased. We are turning out arsenic to the value of 5000 lb. a month, a not unsatisfactory result when the work in hand, the sinking of two shafts and the erection of tin plant, is considered. While waiting for the stamps every preparation is being made to ensure a large and regular output. I may mention the new shaft west has been holed to the surface from the 20 ft. level under adit. It is being now actively worked, receiving residue from surface to fill up gunns, which will enable us to remove the entire lode with little expense for timber. The great merit of the lode had rendered the keeping of the sides with timber excessively costly as well as dangerous, and at most points altogether impracticable. Hence the necessity for this new shaft, which has been made sufficiently large to serve as a hauling shaft later on. It is 9 ft. by 4 ft., with a single skip and residue pass. The new shaft east will be 12 ft. by 6 ft. within timber, which will give us room for a double skip-rod, alignment of rods for sinking under the 80, and a footway. This shaft, which was commenced on the 16th ult., will give us enormous resources, besides enabling us to sink in the intermediate lode, which improves for tin every fathom in depth. The opinion of the most competent judges is that the mine will yield a deposit of 100 tons of tin under the 80. The tin works are being rapidly proceeded with, and as soon as they are at work good returns of tin, copper, and arsenic may be counted upon. With the resources which I have myself proved, as soon as the new shaft is down, which I hope will be a *fait accompli* within 12 months from this date, the returns from the mine will be, I can safely predict, satisfactory to all concerned. I have just given a brief sketch of the position of the company, and shall be happy to answer any questions, and welcome the visit of any gentleman who would like to see the works for himself, which are quite worth a visit. The machinery and plant are in good order, and all points underground are reported as looking exceedingly well.

The CHAIRMAN, in reply to a question, said that 500 lb. a month of arsenic would pay the ordinary working expenses of the mine.

Mr. WILSON said he had a good deal to do in forming the company, and as his friends were largely interested in the undertaking, probably to the extent of half of the whole company, he would simply say he was down there on Tuesday last, and went all over the mine. He had previously seen the mine some time ago, but not accurately examined it. He went all over the mine in company with their very able and experienced manager, and he received from him an impression much greater of the value of this concern than he had even when he introduced it. He never introduced a mine unless he knew something about it, and felt confidence in it. He knew something about this mine, and could speak with very great confidence respecting it. He must say he was greatly pleased with what he saw the other day. He felt safe in saying that when he met them 12 months hence they would be able to say that not a single statement made in the first reports had been found to be in the least degree exaggerated. Several gentlemen went and saw the mine on behalf of intending investors, and one of the directors was extremely cautious, and sent Capt. Josiah Thomas, of Dorking, and upon his report, which was never published, he was so satisfied that he not only bought his shares but became a director. He referred to Mr. Low. Mr. Baxter, who had been largely instrumental in forming this company, and in inducing his friends to take shares, sent also Mr. Henderson, of Truro, who was a well known man, and one of considerable authority, and upon his report Mr. Baxter entered on this matter with the zeal and pluck with which he took up everything. The result was that in 48 hours every share was underwritten, without a prospectus, without a single puff or paragraph, without a single circular, and without a single meeting of gentlemen interested. He thought they would find that the statements made would be fully borne out by facts and results, and he thought those results would astonish even the most sanguine shareholders here to-day. He should like the shareholders to go down to the mine, which was in a most beautiful part of the country, on the banks of the river. They had their supplies brought up to their own quay, and the ore sent

away. There was no labour or carriage; it was all done in as cheap a way as possible. There was a ready market for their stuff. It was a great mistake to suppose that for arsenic there was a limited market; there was a good market, and likely to be for some time to come. But arsenic was not the mineral which was going to make the good fortunes of this company. Under the arsenic would be found deposits of tin, or tin and copper. In the meantime, they would have the arsenic to pay their expenses, and to pay them he hoped very handsome profits.

Mr. Low said he had been twice down the mine, and was there about three weeks ago, and was thoroughly shown over the mine by Capt. Bulford, who appeared to be an able, energetic, and conscientious manager. He could only say so far as he could see that the anticipations of Mr. Wilson were not one whit exaggerated.

Mr. WILSON: I believe it is going to be made one of the greatest mines in Cornwall.—The CHAIRMAN: I do not think many mines can show a better lode proved for 60 fms. in depth.

The CHAIRMAN, in reply to a SHAREHOLDER, said they calcined the ores, and then precipitated them, but some calcined themselves, on account of the presence of sulphur.

Mr. WILSON added that whatever the price of arsenic might be they could supply it cheaper than anybody else, from the size of the lode, the position of the mine, and the cheapness with which it could be worked.

A SHAREHOLDER said he had listened with great pleasure to all that had been said, and to the confirmatory statement made by Mr. Wilson. He was convinced that this mine was one of the most wonderful mines of the present day, but he would like to know what their working capital consisted of? How much money they had in hand to carry on this important and extensive work.

The CHAIRMAN replied that the amount set aside for working capital was 10,000s., which was quite ample for all their needs, and not much of that so far had been expended. The mine was paying working expenses, and extra expenditure would be for machinery and plant. The moment they got up the tin plant they would make a good profit.

On the motion of Mr. SCHOFIELD, seconded by Mr. F. L. SLOES, a vote of thanks to the Chairman and directors, the secretary, manager, and staff then terminated the proceedings.

AGENTS' REPORT.

June 15.—The lode in the 80 fathom level is improving in appearance, producing 12 tons of arsenic ore per fathom. No. 1 stope, in the bottom of the 65 fathom level, west of the winze, is producing 20 tons of arsenic ore and 1 ton of copper ore per fathom. No. 2 stope, east of winze, is producing 15 tons of arsenic ore and occasionally good stones of copper ore. No. 3 stope, in back of the 65, is producing 10 tons of arsenic ore per fathom. No. 4 stope, in back of same level, is producing 20 tons of arsenic ore per fathom. No. 5 stope, in bottom of the 50, produces 30 tons of arsenic ore per fathom. No. 6 stope, in bottom of the 20, is producing 12 tons of arsenic ore per fathom. No. 7 stope, in the back of the 20, is producing 16 tons of arsenic ore per fathom. The new shaft east is going down favourably.—H. BULFORD, J. RONDA.

THE TAMAR SILVER-LEAD AND FLUOR SPAR MINING COMPANY.

The third ordinary general meeting of shareholders was held at the Masons' Tavern, on Saturday,

Capt. A. S. GILBERT in the chair.

Mr. W. H. PYNE (the secretary) read the notice convening the meeting, and with the consent of the shareholders present, the directors' and agents' reports were taken as read.

The CHAIRMAN moved the adoption of the report and balance-sheet, explaining that the reason it had not been earlier in the hands of shareholders was on account of the Whitsuntide holidays intervening, and the auditor being unable to prepare it before; however, it was now before them, and he should be happy to explain any item that did not appear sufficiently clear to them. He might mention that as the application for the recent issue of unallotted shares (which had been offered to shareholders only) had been 1000 in excess of the number which the directors first proposed to issue, they had decided (so as not to cause any disappointment) to issue another 1000 shares, making 3000 shares in all. The proceeds from the sale of these, coupled with the value of the silver-lead and fluor spar raised during the past year, brought their present credit balance up to 55920.10s., which was very satisfactory; and with this sum in hand they would be able to develop their new discovery speedily, and to profitable advantage. Captain Goldsworthy was present, and could answer any technical or other questions in regard to the operations at the mine.

In answer to Mr. VANE AGNEW, the CHAIRMAN stated that since March 30, the date up to which the accounts were made, the sum of 10070.1s. due to the company as calls on shares had been reduced by about one-third.—Mr. G. VANS AGNEW seconded the adoption of the report and balance sheet, which was then carried unanimously.

Several shareholders, who showed some knowledge of mining, put a number of pertinent questions to Capt. Goldsworthy, and received satisfactory replies—showing from him that the recent discovery was one of immense importance to the shareholders. He stated, moreover, that every available piece of ground had been taken up in the neighbourhood in consequence of this discovery, which had created much excitement in the district.

Mr. GREGORY asked whether this discovery was made upon the celebrated South Tamar lode, and whether it was probable that in driving south upon it a large body of silver-lead might be laid open?—Capt. GOLDSWORTHY replied that it was decidedly the South Tamar lode, and at any day they might cut into a great deposit of silver-lead. They had cut the lode some 55 fms. from surface in virgin ground.

The Rev. J. FLETCHER thought it would be more satisfactory if Capt. Goldsworthy would address the meeting, as he could not hear the replies.

Capt. GOLDSWORTHY then explained the operations which had been carried on during the past year, and that their principal object had been to get south of the cross-course, and intersect the South Tamar lode. This was a work of considerable labour and anxiety, for they found the ground very hard, and they had to drive a considerable distance before they got through the cross-course and away from the influence of the slide. When clear of this they crossed-cut east and west, and found the lode in their eastern drive. He was pleased to say that it maintained its size, was a strong well-defined lode, with a gentle underlie east, letting out large quantities of water, and, in his opinion, likely to prove a most valuable discovery, and handsomely repaying the shareholders. In the western cross-cut indications were also very favourable for intersecting another lode. He would propose shortly to sink a new shaft close to or on the course of the lode to open out this part of the company's property, it was necessary for ventilation as well as for economically returning the ore, for the point where this discovery was made was some 300 fms. from their present engine-shaft; when this work was done the company would practically be in possession of two mines, the old and the new, the former was by no means exhausted, silver-lead and fluor spar would be produced in fair quantities, and he was sinking a winze from the 27 to the 57 (cutting out the 47 which was some distance behind), and was of opinion that this operation, when completed, would lay open a valuable section of ore ground. (Applause.)

In answer to several shareholders, Capt. GOLDSWORTHY said the mine was amply provided with machinery and all requisites for present requirements, the company had nearly ½ mile run upon the course of the new lode. He should put the new shaft down near or upon it, both rising and sinking, which would be less expensive, and should be in the ore-bearing part the produce would go a long way towards paying cost of the work.

The Rev. Mr. FLETCHER wished to know why more work had not been done during the past year; they had satisfactory reports from the mine, and the prospects seemed good, but he thought more rapid progress should have been made?—Capt. GOLDSWORTHY said he had made every effort to push forward the work, and he thought that the fact of 45 fms. of ground having been sunk and driven was a sufficient proof of it.

Mr. GREGORY said that glancing at the report which he held in his hands, he read as follows:—Since the last general meeting the 57 south has been driven 12 fms. 5 ft. 7 in. a winze was sunk in the 37 fms. 1 ft., and the 27 south 10 fms. and cross-cuts put out east and west 15 fms.; raised during the same period 12 tons of silver-lead, 130 tons best fluor spar, 120 tons seconds, and 150 tons thirds, or a total of 400 tons, which is now on the floors. And when he took into account that lead and fluor spar to the value of 6070.10s. has been raised during that period, that the results of the year's working were eminently satisfactory, especially when it was remembered that the 27 had been driven through a hard and unproductive cross-course, which occupied double or perhaps treble the time of driving through ordinary ground. It had been Capt. Goldsworthy's belief that when he got south of this cross-course he would cut the South Tamar lode, he (Mr. Gregory), when at the mine year or so since, walked with Capt. Goldsworthy upon the back of this lode from the Tamar Mine almost to the old South Tamar boundary, there was no mistaking the fact that it was the same lode, and the point at which it had been cut (55 fms. from surface) was a feature of paramount importance, for as they drove upon its course there was no doubt large bodies of silver-lead would be cut into, and should the lode be ore bearing up to surface, hundreds of thousands of pounds worth of silver lead could be taken away. He had received from Capt. Goldsworthy some samples had sent a portion of it to Messrs. Johnson, Matthey, and Co., the eminent assayers. They certified that it produced 80 per cent. of lead, and 73-500 ozs. of silver per ton of ore, he need not tell them that there were few lead mines in this country, out of the Tamar district, that could boast of such a high percentage of silver in their lead. He felt convinced that this discovery would establish the value of their mine, and they must not overlook the fact that they were not in a capital of 100,000s., of which 50,000s. had been absorbed by vendors of the mine, but that their nominal capital was 40,000s., and of that number only 27,000s. had been issued, therefore, should this discovery turn out as he firmly believed it would, and give them good dividends, they would only have to pay those dividends on 27,000s.; and if the mine with such a discovery so rich in silver could not do that it would belie the expectations of every one connected with it. It would not need a large output of silver lead to pay 20 per cent. upon the issued capital, and this dividend he confidently anticipated when the southern ground was further developed. He knew of few progressive mines which could boast of being in the satisfactory position of the Tamar, and he felt this was proof of the mine in which that gentleman had performed his duties as a director. He wished at the same time to make a few remarks upon this position—as to the manner in which the operations at the mine had been carried out. One gentleman had questioned whether as much had been done as should have been. He thought that, as had been previously explained, the quantity of ground driven was a perfect answer to that question. Capt. Goldsworthy had

gone to work carefully and cautiously, not with a lavish expenditure for the sake of doing something, as was the case in many mines, unfortunately for the shareholders. He had but one aim in view, and that was to cut the South Tamar lode, and this he had done without extravagant or needless expenditure—their total working expenses for the year were but 13000s. In conclusion, he expressed confidence in Capt. Gilbert, whose re-election he then proposed.—Mr. G. VANS AGNEW seconded the same, which was put to the meeting by the Hon. J. M. F. Erskine, and carried unanimously.—Capt. GILBERT, in returning thanks for his re-election, said he should continue to give the same attention to, and take the same interest in the concerns of the company in the future as he had done in the past. He was highly gratified with the prospects of the undertaking, and felt that at their next meeting he should have something much more satisfactory to report to them than he had on the present occasion. (Applause.)

The CHAIRMAN next put the proposition of Mr. Gregory, "That a vote of thanks be given to Capt. Goldsworthy."—The Rev. J. FLETCHER explained that the remarks he had made respecting the work done at the mine were made in no captious spirit, but solely with a view to elicit information; Captain Goldsworthy and the Chairman had replied to them most satisfactorily, and he would add that he resided in the same neighbourhood as Capt. Goldsworthy, and had the highest opinion of him, he had always heard him well spoken of. It augured well of a man when he was held in esteem by those amongst whom he resided. (Applause.)—The Rev. J. S. GOSWELL said that it afforded him pleasure to second the proposal of a vote of thanks to Capt. Goldsworthy, who had been most severely criticised by gentlemen present who appeared to be no novices in mining, and he was exceedingly pleased at the prompt, straightforward, and satisfactory manner in which these questions had been replied to. He had seldom attended a meeting in which he had been so interested or gained so much information. (Applause.)—The CHAIRMAN, in putting this proposition to the meeting, expressed his entire approval of Capt. Goldsworthy's management. He was a good servant of the company, and being also the mineral agent to the Earl of Mount Edgemoor, held a position of trust and responsibility. He saw that a new company recently introduced were anxious to obtain Capt. Goldsworthy's services. He should be pleased if it proved to his advantage, but he trusted that he would continue as manager for the Tamar Company. The votes of thanks were then carried unanimously.—Capt. GOLDSWORTHY briefly returned thanks, and expressed his intention of continuing to act as manager for the Tamar Company.

EAST WHEEL ROSE MINING COMPANY.

An extraordinary meeting of shareholders was held at the Cannon-street Hotel, on Monday, for the purpose of confirming the subjoined resolutions as a special resolution, passed at an extraordinary meeting held on May 20:—

In Article 89 the words, "being employed by the company or board in any professional capacity, or as the manager of the business thereof, or any part thereof, or of his," shall be erased.

Article 90 as follows:—"90. Any director or other officer or member, whether occupying a fiduciary position or not, either alone or conjointly with others, may become the purchaser of the property and effects of the company, or any part thereof, in the event of a winding-up or dissolution, or at any time when a sale of the company's property and effects, or any of them, or any part thereof, shall be made," shall be cancelled.

Article 130 as follows:—"130. No claim to dividends shall be admitted after six years from the day on which the same became payable; and the moneys to which no claim shall have been established within such period shall be applied for the benefit of the shareholders generally. And the effluxion of the term of six years shall be an effectual bar against all persons claiming, whether such persons shall have been under legal disability or incapacity or not," shall be cancelled.

Mr. F. HUTLEY (secretary) read the notice convening the meeting.

Mr. J. VALENTINE SMEDLEY (who presided) said—Gentlemen, I regret to say that the reason you find the chair occupied to-day by me is in consequence of the indisposition of our worthy Chairman, who took a severe chill last week when with us on our tour of inspection to the East Wheel Rose and other mines. I may take the opportunity of telling the shareholders present that we were extremely gratified by finding the work progressing so rapidly at East Wheel Rose. Penrose's shaft, I am happy to inform you, is down 10 fms., well timbered, and thoroughly efficient, and the whole of the water is now drained off below the adit. We have only about 2 ft. of rubbish to clear in the shaft, when it will be clear in rock down to the 150. The Chairman, on the occasion of the visit alluded to, laid the foundation stones of the engine-houses at Penrose's shaft, and North Wheel Rose shaft; and I may in a word report that the operations are progressing as fast as they possibly can consist with efficiency and economy. As you are aware, gentlemen, this is but a formal meeting. It is called under the Act to confirm the proceedings held subsequent to the statutory meeting on May 20 to pass three resolutions, making certain alterations in three of the Articles of Association, such alterations having been requested by the Committee of the Stock Exchange in order to grant the shareholders of this company a quotation on the Official List. I have, therefore, but to put these resolutions now to the meeting for confirmation.

The CHAIRMAN then put the resolution *en bloc*.—Mr. J. V. GOUGH seconded the motion, which was carried unanimously.

On the motion of Mr. G. R. BROWNE, the Chairman (Mr. Smedley) was cordially thanked for presiding, and the meeting was then brought to a close.

GOODEVERE TIN MINING COMPANY.

The statutory meeting of this company was held on Thursday at Mr. Alfred Thomas' mining offices, Coleman-street—Mr. Alfred Thomas presided.

The notice convening the meeting was read by the Secretary (Mr. Cumming), and also the report from the mine.

June 9.—I beg to hand you the following report, showing the work which has been accomplished, as well as the present state and future prospects of the mine: The sett, or grant, covers a large area of ground, extending from east to west the course of the lode, about one mile, and about the same distance from north to south. The region in which the mine is situated has been known from periods of remote history to be productive of tin of the very highest quality, and most extensive "streamings," or alluvial tin workings, have been from time immemorial conducted in its immediate vicinity, and the Goodevere sett is highly stanniferous. On what was considered the No. 1 lode, where the principal operations are for the present confined, two adit levels, or tunnels, have been driven east into the hill, a distance of about 120 fms., each on the course of a lode; these drivages, when communicated with the shaft, which I shall hereafter refer to, will un-water the same at 60 fms. and 20 fms. in depth respectively. In driving these two adits a large quantity of valuable tin ground has been opened out, which will be "stopped" in the usual way later on when the dressing machinery is fixed, and ready to treat the orestuff, a large quantity of which has been brought to surface. It has recently been proved by drilling that we have not driven the adit levels or tunnels on the shaft lode, but on a parallel lode; so that we have yet to cut the shaft lode by cross-cutting from the adit levels, we are driving a cross-cut south from the deep adit level in ground of a highly favourable character, and are not far off, in my opinion, to cut the lode here. We shall also, in the shaft adit level, put some cross-cuts at once to drive south, and communicate with the shaft. This will give us ventilation, and lay open a large section of lode for stopping. During the past fortnight we have collared up the shaft above referred to, cleaned up same to the bottom, and commenced sinking; and I am very pleased to state that in the bottom of the shaft we have a very fine lode 4 ft. in width, composed of a congenial peach, associated with a small percentage of sulphide of iron, and containing both granular and finely disseminated tin ore. This shaft is being sunk by six men, at 11s. per fathom. We have tested various samples taken from the bottom of the shaft; the highest gave a produce of 75 lbs., two other samples yielded 25 and 35 lbs., respectively, per ton of tin ore; some of the rocks containing this tin weigh from 1 to 5 cwt. each. There is a large river forming the western boundary of the sett, and the supply of water is constant and abundant for all the necessary dressing purposes. It is evident that any mine with this advantage will, as a matter of course, yield a larger proportion of profit from this same production of ore than one in which steam machinery has to be employed. The surface operations are being urged on with all possible dispatch, and we shall be in a position to sell tin as soon as the water-wheel, stamps, and dressing-floors are fixed. In conclusion, I beg to state that the prospects presented at Goodevere are of the most gratifying nature, and I hold a very high opinion as to the merits of this mine.—R. KNOTT.

The CHAIRMAN: This meeting is simply called in accordance with the Companies' Acts, whereby every company is obliged to call its shareholders together within four months of the date of registration. This company was registered on Feb. 11, and so we have complied with the stipulations of that Act. We have no business to transact to-day other than to put before you the report which you have heard read by the secretary, and which, I think, corroborates everything that was stated in the prospectus. With regard to the working of the mine, you will observe that we have already made a commencement. We have found that the adit levels have been driven the distance stated, and that the tin we have taken from them in continuation of the drivings has proved that the quantity of tin-stuff contained is in excess of what was stated. (Hear, hear.) In fact, the prospectus was couched in very moderate language in regard to the tin. We drove the cross-cut to intersect the lode upon which the shallow adit is driven. It was understood that these adit levels were driven upon the same lode, but upon a very careful survey made by men of note in the county it has been proved to demonstration that there are two lodes, which of course makes our property so much the more valuable. Therefore we are cross-cutting from the bottom of the adit level to the shallow adit level in order to effect a communication, and so ventilate the deep adit level. The shaft before referred to is being sunk with the view of communicating with the shallow adit, and it is not certain that this is the same lode we have been driving upon in the shallow adit. Seeing the present adit level is in a rich course of ore, and that the shaft is sinking in such a lode as I have already described, I think we have a very valuable property, much more so than we had reason to anticipate. The whole of the capital the directors intended to issue has been taken up, and taken up by good people. The money available is more than sufficient to erect all the machinery which we shall require; at any rate, for the next two or three years. All preliminary work in connection with the erection of the machinery is being pushed forward as fast as possible, and no time will be lost in erecting the machinery to return the tin which we have in reserve in the two adit levels, and in the side of the shaft before referred to. Mr. Sims has visited the mines, and he can add anything to these statements he thinks proper. (Hear, hear.)

Mr. CHARLES J. SIMS: You, sir, have already spoken so fully as to the points in operation that there is almost nothing left for me to say. It shows that when you were visiting the mine you grasped the whole situation. There is just one point you have omitted to touch upon, and that is the allusion to water power. We should not forget that this is a very important matter. We have a large stream of water, which forms the western boundary of the settlement, and we can put up a very large water-wheel, which will give us ample power for all we want to do. When you consider that we are some distance from the shipping port, and that coal would be an expensive item—that is a very important point. With regard to streaming, that is really washing out the tin from the alluvial soil very much as the gold was washed out in Australia in bygone times. In all the rich districts of Cornwall the surfaces have been streamed. I would not give anything for a tin mine in which streaming had not been carried on at surface. There is no doubt the tin of that district has been worked as far back as the time of Queen Elizabeth, and possibly before that. The district is rapidly becoming of note in the mining world. Sells are being taken up now which were not looked at before. As regards this mine, I have known it since ever the first sod was turned, and I am pleased to say my late visit has made me think more highly of it than ever before.

The proceedings closed with a vote of thanks to the Chairman.

THE PIONEER MINING COMPANY.

The second ordinary general meeting of shareholders was held at the Cannon-street Hotel, on Wednesday.

Mr. HENRY HAYMES, the Chairman, presiding.

The CHAIRMAN: The solicitor will read the notice calling the meeting. The secretary is at the office certifying transfers, and, therefore, he cannot be here to-day.

The SOLICITOR read the notice.

The CHAIRMAN: Gentlemen, will you have the report read, or taken as read?—The report was taken as read.

The CHAIRMAN: Gentlemen, you will, if you have carefully read the report from the mines, find that in the Pioneer Mine—that is, the first mine the company purchased—we have within the last few weeks come into a new copper lode. The samples taken from that new copper lode have been assayed by Johnson and Sons, the assayers to the Bank of England, and they give the extraordinary analysis of 18 per cent. of copper. When the company was started we anticipated that if we could get an average yield of 8 per cent. the profits of the company from that mine alone would be equal to 80 per cent. upon the capital of the company. We have very little doubt, and our managing director and mining engineer has also very little doubt, that as we go down in depth we shall find the Pioneer—that is, the Abernethy Mine—to be a very valuable one, but at the present time the mine will open out quickest, and from which we shall get in a very short time an amount of mineral which will enable us to declare a dividend, is the Pant-y-Pydw. With reference to the Pant-y-Pydw Mine, I may state that since the date of the report, published in the directors' report, we have received from our agent and engineer in Holywell the following report, which I will read to you. There has been no time to circulate it:—

June 11.—I beg to furnish you with the following report for meeting. As you are aware, a vast amount of work has been done at the mines since February last in the shape of repairs to the various shafts and levels. This has cost a heavy sum, and, together with the cost of timber and machinery, has up to the present time formed the principal item in the expenditure. To a great extent this has been completed, and our attention is now being directed to the opening out of the mine by sinking shafts and driving levels. Blackwell's shaft has been sunk to the 100 yards, and lodge-out and cross-cut driven north about 9 yards. The loose channel of ground which usually accompanies the hanging side of the Pant-y-Pydw lode, consisting of boulders of limestone and clay, has been reached, and we have been enabled to make much better speed lately, the price for driving having been reduced to 30s. per yard. I feel pretty sure that there is no hard ground intervening between the present forebore and the footwall of the Pant-y-Pydw lode, and although there may be a few yards to drive to reach it, it can be done quickly, and at a small cost, and judging from the richness of the lode both east and west from this point, we may fairly calculate on making a valuable discovery at an early date. The engine shaft has been repaired to the 60 yard level, and the 60 east cleared and secured about 90 yards, and the end reached. A few yards behind the end there is a nice lode about 1/2 yard to be seen in the roof of the level, containing a good mixture of lead. Close to the forebore a level has been driven south on a small cross lode; this we are now clearing. Whether this is a portion of the Pentecost lode or not I cannot yet say, as sufficient cannot be seen of it to warrant me in expressing an opinion either one way or the other, but I shall be able to say shortly. The engine shaft is being cleared below the 60 with a view to draining the lead ground, so as to get a trial pump down in the ore. This has been in abeyance for the last few days owing to the engine being required for winding night and day from the 60; the work, however, is now being proceeded with, and in a few days I hope to be able to report good progress. The new shaft, on Galop Bell lode, has been sunk about 6 yards from surface, and let per contract at 42s. per yard. The object of this shaft you know; it being a main shaft from which to drive levels to carry off the whole of the water from other parts of the mine. When completed we shall have all the ore ground drained naturally, and shall be able to win it without the aid of pumping machinery. At Bessie's shaft we have nearly completed the repairs, and shall be able to commence winding ore from the 30 by the time this reaches you. We have had rather a troublesome job here, as the shaft had gone badly out of order, and required a deal of timber. I am pleased to inform you that this section of the mine looks well, and we are now in a position to make returns of ore therefrom. The ore appears to be in a flat, and in a north and south vein crossing it, and as there is a very large tract of unexplored ground in this direction it is likely we have large deposits of ore in connection with that already discovered. At the same time, I will challenge the district to show finer ore than we have, and I am sending you a lump per rail on Monday for the board to see the quality. We shall want either a small portable engine or a horse whim for winding at this shaft, the ground being of an easy and soft nature for exploring. There will be a large quantity to wind; we must, therefore, be provided with some means better than manual labour for winding the stuff to the surface.

In conclusion I must congratulate you on the way in which the mine is turning out, and I am confident that the discovery of ore at Bessie shaft is only the precursor of other and more important discoveries, and I have not the least doubt that your objects will yield immense quantities of lead and pay you large dividends.—H. B. VINCOR.

I do not know whether any of you have seen the *Mining Journal* of last week, but if you have not and if you refer to it, you will find the following letter from some person who has inspected the mine:—
"Having seen these mines referred to two or three times of late in the *Journal*, and having on the last occasion noticed the public were invited to 'come and see,' I accepted the invitation, and without any ceremony I called at the mines, and found both agents and workmen busily engaged—in fact, the place just now is a regular hive of industry. I was shown over the mine from one end to the other, and, by the way, it is a very extensive property, and judging from the ore being raised and the prospects of other important discoveries I am convinced that there is a great future in store for the shareholders. I am informed that the directors in the Pioneer Company are also directors of the Date Coffee Company, which is one of the most successful companies that have been formed of late years; but, great as its success has been and still is, I venture to predict a greater prize in store for them at Pant-y-Pydw Lead Mine. I have known the Halkyn Mountain district for many years, and I have often made a tour of inspection through the principal mines, but never in my life have I seen finer blocks of lead than those being raised at the Pant-y-Pydw. The mine is situated in the eastern portion of the mine, and I am informed there are several other important discoveries on the eve of being made. I shall expect to see large sales of lead at an early date, and I am confident shares will speedily rise in value cent. per cent."

Now, gentlemen, since that date we have received a block of ore from the mine, about 1 1/2 cwt. more or less, considerably over 1 cwt., which you can see at the company's office. We could not bring it here, and I do not hesitate to say that a finer piece of ore has never been sent to the London market. Call and see it for yourselves, and bring your friends with you who are shareholders, and if they are not shareholders be glad to see them. This morning, before we came to the meeting, we received from Mr. Vercoe the following telegram:—
"Returned to Holywell last night; been at Pant-y-Pydw this morning. Getting splendid ore at eastern shaft equal to sample sent."

That is the sample at the company's offices. We had also received the following letter from Mr. Vercoe:—

"We have suspended the drive of the deep adit south on lead vein for the present, and placed the men to cross-cut east, to intersect the new copper lode. I calculate on having about 5 yards further to drive to reach it, and judging from the very promising appearance of the ore, and the fact that the ore is being nicely mixed with rich sulphuret of copper, I expect to find it more productive in the cross-cut, now driving, particularly as it will be nearer the point of junction with the copper lode, and have some yards of backs more than when last seen. The lodge in deep adit on lead lode, over new pump, has been completed, and sinking sump commenced. I have let a contract at 50s. per yard; the lode is of a very promising nature, composed of beautifully crystallised quartz, clay, sulphur, and spots of lead. I am strongly of opinion that this lode will produce lead in quantity at a fair depth, and if we are not prevented by an influx of water, I hope to reach the lead-bearing gravel without the aid of machinery; this sump will also prove the new copper vein in depth, and I am very sanguine of success in both veins below the level of the valley."

With these few remarks I will move the adoption of the report and accounts, and I will simply add that, in my opinion, and we have had the benefit of the experience of Mr. Adley, who thoroughly knows the mine, and who spent five or six months upon the mine last year, and who has only within the last two or three months been again and visited the mine. My friend and colleague, The O'Reilly, knows the Pant-y-Pydw thoroughly well, and will concur in the report, and give you his own idea of it, and I do not hesitate to say that we have got in our hands one of the richest lead mines which has ever been brought before the public. I will now move that the directors' report and the accounts be approved and adopted; but before putting it, I will sit down to hear any questions which any shareholder may wish to put. (Loud cheers.)

The O'REILLY: I beg to second the motion which has been made by my friend, the Chairman. I have been intimately acquainted myself with the Pant-y-Pydw Mines for many years, and have frequently visited the whole of the underground workings, and it is my firm conviction that in that mine we shall very shortly own one of the very finest properties in Wales. We have every reason to be satisfied with the zeal and ability of our local manager, Mr. Vercoe, and the whole general direction of the workings of the mine is under the superintendence of my friend and colleague, Mr. Adley, a civil engineer of very great experience. The Pioneer Mine, gentlemen, is no ordinary venture brought forward merely with the view of placing the shares in the hands of the public. The affair is intrinsically sound and honest in every way, and I feel sure that it is only a question of a very short time before you will be amply rewarded for the confidence which you have placed in the undertaking and in its promoters. I beg to second the motion of the Chairman, that the report and accounts be received and adopted.

The CHAIRMAN: Has any shareholder any question to put before I put it to the meeting? There being no response,

The CHAIRMAN said: Well, gentlemen, those who are in favour of the adoption of the report and accounts will kindly signify the same in the usual manner.—On the contrary?

The motion was carried unanimously.

The CHAIRMAN: The next question is the re-election of the auditor, gentlemen, and I propose that Mr. G. H. Elyard Brown, our auditor, be re-elected. That is a shareholder's question, and I shall be very glad if some shareholder in the body of the room will second that.

Mr. ELYARD: I beg to second that.—The proposition was put and carried unanimously.

The CHAIRMAN: That, gentlemen, concludes the business, and I can only say what I have said before, that I believe we have got a mine which has never been surpassed yet. Come to the office, take anybody you like to them at any reasonable time, and see the sample that is there. Then compare that with this telegram and the report I have read to you to-day and I think you have all the information that we can possibly give you, and we hope—and I do not think there is any doubt about it—that before the close of the present year we shall be calling you together with the view of paying a dividend. That concludes the business.

Mr. JOHNSTONE: I beg to propose a vote of thanks to the Chairman for his able conduct in the chair. A SHAREHOLDER: I shall have great pleasure in seconding that.—The proposition was carried.

The CHAIRMAN: Gentlemen, I can only repeat that we are very much obliged to you. Your interest is our interest, and I am quite sure that what you have heard to-day you will find the result of the working of the next few months fully verify. We are not infallible, and we are liable to accidents the same as other people are. But the work has gone on now so carefully and so well that I only wish you would all of you go down and look at the mines yourselves, and if you would not be far more astonished than we have been during the last few weeks I am very, very much mistaken.

A SHAREHOLDER: Would you mind reading the telegram again?—The Chairman: Yes, and I will read the piece out of the letter, because I do not think you would follow it without—that is, the letter of January 13. It says:—"At any rate, I will challenge the district to show finer ore than we have, and I am sending you a lump per rail on Monday for the board to see the quality. We shall want either a small portable engine or a horse whim for winding at this shaft. The ground being of an easy and soft nature for exploring there will be a large quantity to wind. We must, therefore, be provided with some means better than manual labour for winding the stuff to the surface. In conclusion, I must congratulate you on the way in which the mine is turning out, and I am confident that the discovery of ore at Bessie's shaft is only the precursor of other and more important discoveries, and I have not the least doubt that your property will yield immense quantities of lead, and pay you very large dividends." The telegram referring to that lump, which is at the company's office, is as follows:—"Returned to Holywell last night, been at Pant-y-Pydw this morning. Getting splendid ore at eastern shaft equal to sample sent," and that sample weighs over 1 cwt.—The meeting then closed.

WALKHAM UNITED MINES.

The statutory meeting of shareholders was held at the company's offices, Cornhill, on Monday.—Mr. A. N. SHERSON in the chair.

The CHAIRMAN explained this to be the statutory meeting of shareholders, held according to Act of Parliament, and although not necessarily a business meeting yet the directors would be pleased to answer any enquiries respecting the mine and the affairs of the company. He had recently visited the properties at Tavistock, and could say he was highly satisfied with the position and prospects of the mines, and was very much pleased at the practical and economical way in which the company's affairs were conducted. The repairs necessary on re-starting the mines would, of course, take some little time in effecting, but the work had been pushed on vigorously, and during the 10 weeks that have elapsed since works were commenced, the surface buildings, &c. have been repaired, improved dressing appliances and machinery have been put in where required, and matters generally have been put on a more substantial basis. The property, while operations underground have been directed to getting out the water and opening up the mine as fast as possible to admit of making returns and profits, an object the directors were anxious and persistent in accomplishing as quickly as was practicable and expedient, and he was pleased to say Capt. Phillips had made progress enough at the mines to enable him to promise to commence making sales of tin within so short a space as three months from the present time. This cannot but be considered as highly satisfactory, as it is usually the case that many months, and sometimes years, elapse before actual returns can be made. Additional value was being to a certain extent placed in the company's property by the workings of neighbouring mines, whose lodes were proved to be running directly through the Walkham estate, and the exploratory work being done there would, of course, tend to the advantage of this company.

Mr. F. E. YOUNG (secretary) read the audited report from Capt. Phillips:—
June 11.—In compliance with your request, I beg leave to hand you the following report for the meeting. Our attention has been directed at the surface to the erection of new workshops, storehouses, &c., for centralising the works to command the mines both sides of the river, and in improved arrangements for a more modern and economical mode of dressing the ores, whilst the greater portion of the machinery, houses, and sheds have received substantial repairs. The present number of men have been efficiently supplied with working tools and material, and rail iron provided for some time to come. I estimate that in the next three months our cost will be about 5000l.; this will provide for keeping 20 men employed underground, and to put the mine in good working order, including arrangements on the dressing-floors for a considerable monthly return of tin. The above sum will also provide for completion of the repairs to the adit level in the lead or cross-course in order to extend the same to the intersection of the tin and copper lodes. The clearing up of the new shaft, west of the river, to resuming sinking the same to communicate to the sump winze in the deep adit level; the preparation of the engine-shaft, east of the river, for sinking; the drive of the adit level east on the north tin lode; the clearing of the winze in the adit level on same lode, and drive of the 20 east to communicate to the winze, whereby I have no doubt upwards of 3000l. worth of tin ground will be speedily laid open for profitable stoping to assist in the development of the mine, and from the very mastery and fine appearance of the lode at the 20, the deepest point reached in this lode, as well as the improved character of the lode in the adit level east, I am of opinion the mine will soon develop into considerable importance. The productions of the different points being operated upon on this lode confirm the favourable reports that have been made on the property. I am led to hope, even from the present limited scale of working, that in about three months 2 tons at least of tin will be prepared for market, and basing calculations upon the probability of effecting the communication referred to above very soon we have the promise of being able to make further important returns during the present year. The mine is being dilled, and I hope soon to be able to present you with a good working plan. The operations now being carried on in the adjoining mine—Sordridge Consols—will shortly indicate the position of the same lodes in this property, as they undoubtedly traverse this set, and I hope shortly to be in a position to advise some trials being made on the southern tin and copper lodes.—WILLIAM PHILLIPS.

A SHAREHOLDER asked if the directors were themselves satisfied with the state of the mines and their local management, and if they thought dividends would be earned for the shareholders within a reasonable time; and was answered that the directors considered Capt. Phillips a respectable and reliable authority, and that they had the utmost confidence in him; he was not a sanguine man, and they felt safe in trusting to him. He had reported what he could actually see before him, and they considered this assured well for their future. If at a shall not repeat what he has reported of ore, and estimate returns, and they hoped for and expected good and profitable results of its working. A cordial vote of thanks to the directors and Chairman was then unanimously passed.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS

MINEOWNERS, STOCK AND SHARE DEALERS, &c

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If a man relinquishes his shares in a mine when that mine is poor he cannot claim them again if the mine should afterwards turn out rich. This has been tried and decided over and over again. The first case of the kind was in 1809. Mr. Joshua Rowe, of Torpoint, with his co-adventurers, started the Old Grinnis Mine, near St. Austell—and, by the way, one of the oldest agents in Cornwall at the time, Captain James Michell, had the year previously said that the mine was not worth a "pipe of tobacco." For a long time it seemed like it, for it kept so poor that one by one the shareholders relinquished their shares and got out of it, and Rowe and a few friends were left to themselves, and had to provide for the entire costs. But they stuck bravely on, and then one day a mass of ore was found a few feet from the surface, and the old shareholders came forward and claimed the shares they had thrown up when the mine was poor. Rowe resisted this, and a lawsuit which lasted some years, and cost 20,000l., was commenced. The result was that Rowe obtained a verdict in his favour. Those who had refused to pay calls when the mine was poor were not allowed to have their interests restored to them when made rich through no outlay of theirs, and in 4 1/2 years afterwards the mine made Rowe and his friends a clear profit of 168,000l.

Soon after our last, a telegram was received that the 90 in Carnarvon had improved to 3 tons of copper ore per fathom.

Cook's Kitchen's are advancing for this reason. The boring machine is making rapid progress in communicating the bottom level with the rich winze; and after this communication has been made, and it may be this month, the returns of the mine can be doubled.

The 154 driving west on the Great Flat lode, at West Frances, is approaching the run of tin ground passed through in the level above, and is improving.

There is a splendid lode in the 60 west at South Condurrow, and the Grenville lode, in the new western ground, is opening up quite a new mine.

"A" saw some extraordinary statements in the prospectus of a mine, and the directors were Baronets and "Honourables." He also saw the shares quoted at a premium. He applied for some hundreds of them and got them. He paid 5s. upon them and then tried to get the premium, but it had vanished. He then tried to sell for what the shares cost him, and found them quite unsaleable. "A" now asks us what he is to do, as he cannot pay up the shares to 17. each? Had he applied to us before he applied for the shares we might have advised him, but it is too late now. And this case only illustrates our remarks a fortnight ago that half of the applications for shares are on the faith of the deceptively quoted premiums, and hundreds of people will be seriously crippled, if not ruined, by having to pay up in full for all the shares they have applied for in different companies. This is the "Limited" Liability System! and in the meantime promoters and directors, who know as much of mining as the "Man in the Moon," flourish.

We regret to announce the death of our old friend Mr. Jehu Hitchins, one of the oldest and most respected of mining engineers. Few men had more experience in practical mining and engineering than he had, and no one had better opportunities of appreciating his sterling honesty and integrity than the writer. In fact, he had for us, and at our recommendation, inspected mines in almost every quarter of the globe. It is nearly 40 years since he surveyed for us and our friends the Island of Michipicoten; afterwards he went to Jamaica, to Australia, New Zealand, Newfoundland, and several mining districts on the Continent of Europe; and his opinions were always respected and usually correct. A few years ago we raised a considerable subscription, and presented him with a handsome testimonial in recognition of his many services. Only a week or two ago he was here seemingly in good health and all his faculties clear, though upwards of 80 years of age, and his death has been somewhat sudden.

The Bratsberg is a *bona fide* freehold property working to a profit and capable of great extension, and the ore there can be recommended. There are said to be 500 tons of ore on the dressing floors, averaging 21 to 22 per cent.

Shares are quoted at a premium, but if our correspondent wants an allotment he can send his application to us.

East Blue Hills, then Blue Hills, Penhalls, Wheel Kitty (St. Agnes), West Kitty, and Wheel Friendship form a rich mining district, all on the same run. At East Blue Hills there is an adit which cuts the lodes 50 fathoms deep; here a discovery may be made any day, and the shares may be had at a low price at present.

We were among the first to call attention to South Caradon and the Caradon district, nearly 40 years ago, and were interested in most of its mines for a great number of years, and we knew something of the merits of most of the ground. When East Caradon were at 1s. 6d. each we bought them for our clients and sold them soon afterwards at 60l. per share. We should much like such a chance again; and we have obtained the finest and most important sett in the district, immediately adjoining South Caradon, and on the run of five important lodes. This we may introduce to our friends ere long as "New South Caradon."

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—R. Gledworthy, June 15: Setting Report: To drive the 127 east, by four men, at 14l. per fathom; lode 2 1/2 ft. wide, composed of muddle, fluor-spar, and copper ore; worth for the latter 12l. per fathom, and from its promising appearance we may have a greater improvement any day. To drive the 115 east, by four men, at 11l. 10s. per fathom; lode 18 in. wide, producing a little muddle and copper ore, but not yet sufficient to value. Three stopes in the back of the 127; Nos. 1 and 2 to four men in each, and No. 3 by six men—all at 4l. 15s. per fathom. These stopes are worth on an average about 6l. per fathom. Three tribute pitches, one in the back of the 133, one in the back of the 115 east, and one in the back of the 103 west—all at 11s., 12s., and 12s. 6d. in 14l.—Bridge Lode: To drive the 20, east of McCallan's engine-shaft, by six men, at 5l. 10s. per fathom; the ore bearing part of the lode is about 8 ft. wide, composed of muddle, beautiful gossan, and gray and black copper ore; worth 12l. per fathom. The same level to drive west, by six men, at 5l. 10s. per fathom; the lode is a little disordered by a small patch of killas in the middle, but as both the foot and hanging walls are keeping their former course, and carrying a beautiful branch of black oxide of copper ore on each side, I think this change is only temporary; now worth 14l. per fathom, and no doubt in a few feet further driving it will again be found its former size and value.

BLAEN CAELAN UNITED.—J. Pell, June 15: We are making capital progress this month; have a large pile of good ore drawn to surface ready to put through the crusher. The stope in back of the 30, east from engine-shaft, lengths, and looks as well as at any time. All our machinery is working well.

BLUE HILLS.—S. Bennetts, R. Harris, June 11: The 30 east end contains a most promising lode and tinny, but at present is not very valuable. The 42 east is without much alteration, and the 30 east is worth 15l. per fathom. A stope in the back of this level is worth 10l. per fathom.

BODDRIS.—H. Hitchkins, June 5: Meadow Shaft: A cross-cut to drive south at the 130, by four men, the month, at 250s. per fathom; we are daily meeting with more spar in this driving as we advance, and the rock is more mineralised than any yet seen at this depth. A cross-cut to drive north at the 110 by four men, the month, at 220s. per fathom; the takers of these bargains to pay the bankmen. There is no change in the character of the ground in this end calling for any remark. The 60 to drive east upon the Mies-y-Pwll lode by four men, at 170s. per fathom. This end contains patches of lead ore throughout, which gives us very fair rates for the dressing-floor, and the lode has a promising appearance. I have four men in the back of this level working upon the ore at 120s. per fathom. As we ascend I find the lode still very strong and wide, but not containing quite so much ore this last few days. On surface all is going on regularly, and we are increasing the pile of ore in the bin.

BWLCH UNITED.—W. Northey, June 15: The 50 east has intersected a small fault which has carried a part of the lode in a southern direction, containing soft flookan, quartz, spotted with lead ore. The north part contains ribs of quartz, spotted with copper, sulphur, and soft blue killas. I have placed the men to strip out the north and south parts of the lode, so as to ascertain the main parts to drive on. I let the 30 cross-cut to four men to drive, at 54l. per fathom; the stratum is a fine blue killas or clay-slate. The men have completed timbering and removing debris from the bottom of the 30, and will commence to lay the railroad in a few days. In the 12 under adit the lode is much the same in width and value as last reported. Marvin's lode, 15 fms. under adit is daily improving in width and value, and is now 6 ft. wide, mixed throughout with good lead ore, and likely to further improvement. Nothing new in Quarry lode. I placed the men for a few days to costean, and they have opened up strong lode 5 ft. wide, carrying fine gossan, quartz, blende, and spots of lead ore. Dressing is kept going on regularly, and the machinery is in full work.

CALLINGTON CONSOLS.—T. Gregory, June 15: The shaftmen are now engaged in clearing up the bottom of the shaft, taking up water, &c. We shall resume sinking below this in course of a day or two. The lode in the 45 is of a very promising character, and is producing a little tin and copper ores. The ground by the side is favourable for progress, and very congenial for minerals. In the trial shaft, sinking on the silver lode, the lode is from 2 to 2 1/2 ft. wide, composed of soft quartz, capel, gossan, muddle, and a little silver ore in places, and is altogether exceedingly promising.

CARNARVON COPPER.—W. Darby, June 15: The lode in the 90 end has very much improved during the week, and it is now worth 3 tons of ore per fathom, and promises further improvement. In the sump at the 80 the lode at present is not looking so good, and is not worth more than 1 ton of ore per fathom; but it appears to be slowly turning to its natural direction, and we expect to be into good ore here again shortly. All machinery working all right.

CARNARVON.—W. Darby, June 13: I am happy to inform you that the 90 end continues to improve. The copper which looked best in the middle of the forebore on Saturday is now quite as good in the roof and bottom of the end as it was looking in the middle on Saturday. In the sump there is no change of importance; the copper is a shade better, and the slide is turning for the hanging a little more. I hope before long that we shall cut into much more ore, but I fancy that we are leaving the best copper yet on the hanging. Everything working all right.

CARON.—J. Kitchin and Son, June 13: We have nearly completed the cutting of ground at the 34, and all necessary arrangements preparatory to sinking the engine-shaft below that level; and, seeing the marked improvement in the value and general character of the lode at the 34, compared with the levels above, our energies will be mainly devoted to the sinking of the shaft and opening on the lode at a greater depth, in the accomplishment of which we hope to make good progress; but much will depend on our surface water supply to work the pumping and winding machinery, which is more or less uncertain during the summer months. At the 34 the lode still looks very kindly, and yields good stones of lead ore, hence we shall continue the driving of that level, particularly in a westerly direction, where we believe there are very good chances of making new discoveries of productive ground.

CATHEDRAL CONSOLS.—Stephen Davey, Stephen Davey, jun., June 16: We are pleased to say our progress since starting the engine is very good; the water is forked 2 fms. below the 20, and the pitwork doing good duty; the average forking is about 9 ft. in 24 hours, formerly we could fork 10 fms. in 24 hours, showing evidently that we are now draining water from extensive old workings. Lawry's shaft is sunk on the old lode, in which we have employed six men clearing and securing it from surface, down about 9 fms. The lode, so far as we have seen, is all taken away. This point we shall hasten on as fast as possible. We have also a pile of men in the adit putting in launders and doing necessary

a, NEW HOLMBUSH.—H. Bennett, June 15: During the past month we have completed the new standing-lift from the 100 to the 60, and have dropped o

WHEEL GEORGE,--C. Kneebone, June 15: The new south cross cut towards the west, and has extended 58 ft., and presents a very encouraging appearance. On the south side of the level we have the strong east and west lode already described, and on the north side we are just entering either a new east and west lode or a part of the former with a horse of 6 ft. between. The part just cut into is composed chiefly of light brown amber, with small quantities of carbonate of iron, and is certainly a very good ore. In a week or eight days, and the channel of ground is certainly highly favourable for good deposits of ore. In the No. 2 trial adit the lode is much as reported last week--a leader of amber with strong lead capels on the east side--but we have intersected two branches on the west side, which will fall into the lode as we advance, and look promising for an improvement. I have let this level to two men for 2 fathoms at 50s. per fathom, and they are now entering the lode. The level is now being driven, and walling at the entrance to the south level at 40s. complete, which, from the loose nature of the ground and close proximity to the road, was quite essential. During the past month we have securely fenced the old pits, &c., completed the office and buildings, and put in some washing troughs, &c., to treat the different minerals we have under consideration, and are now in a position to open the mine with advantage.

WHEEL LUSKY.--Wm. Skewis, J. Gifford, June 16: In the cross-cut adit towards the lode the ground is considerably improved for driving, and shows strong indications that we are near the lode. Probably we shall cut this before the month expires.

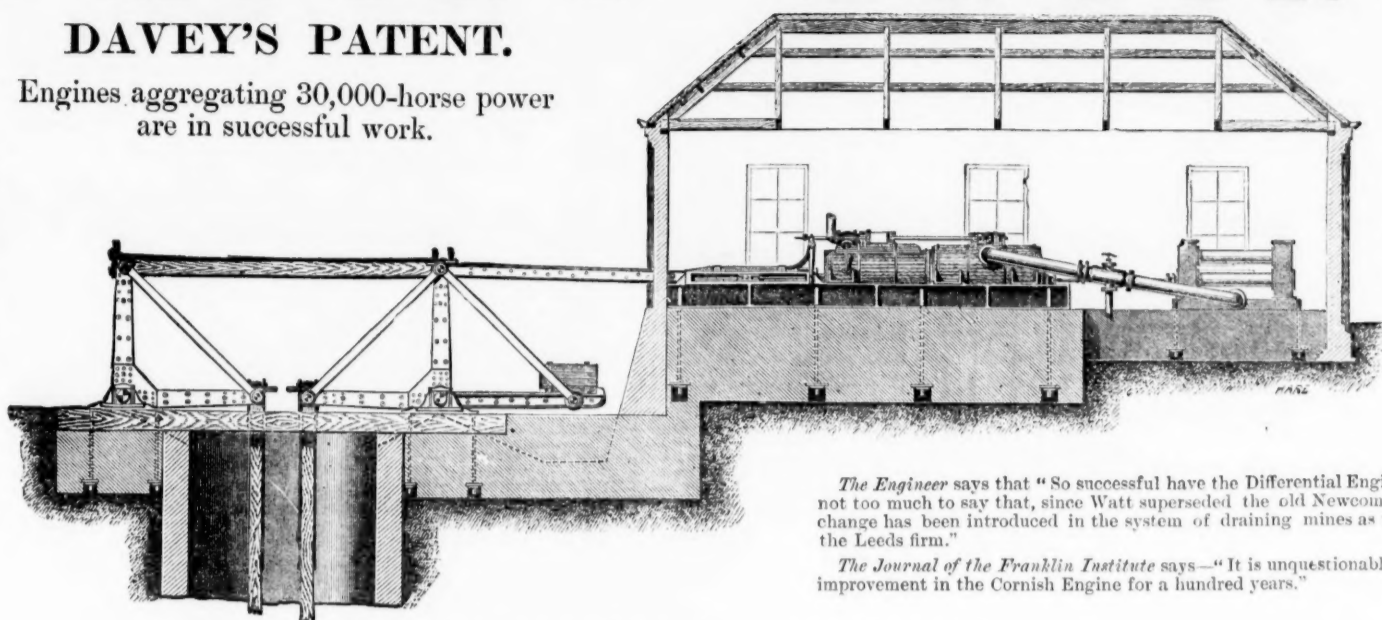
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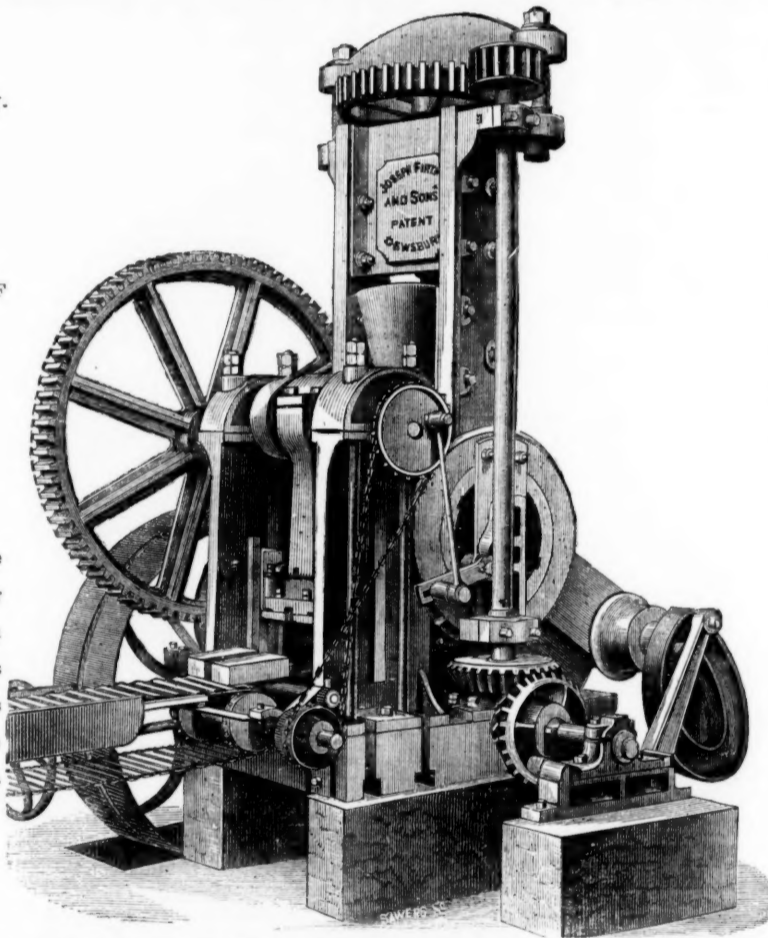
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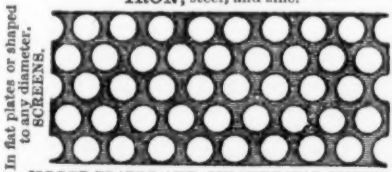
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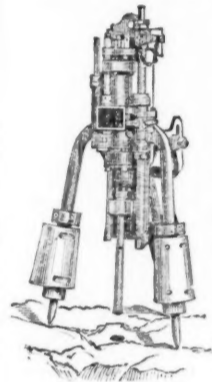
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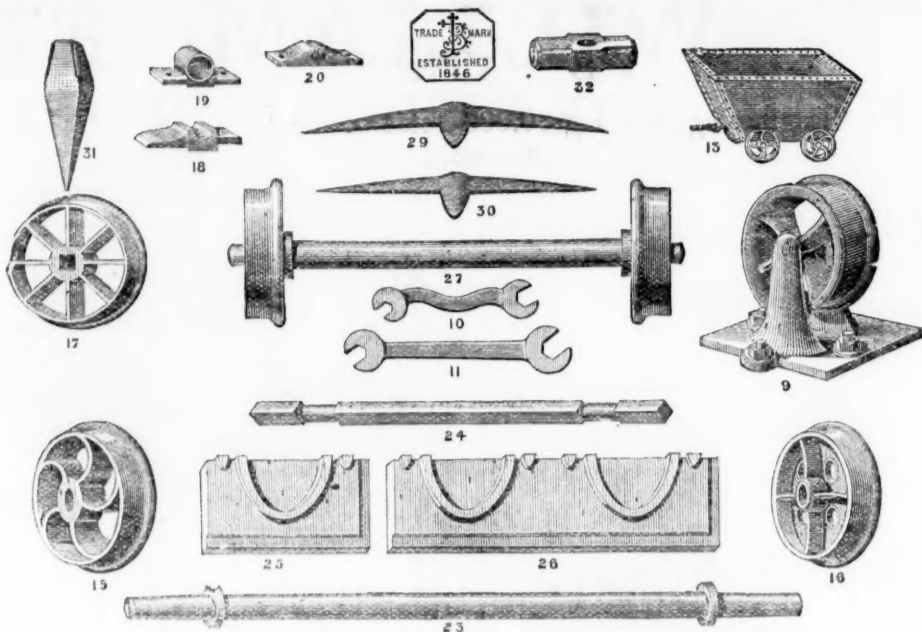
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SOW AND REAP.—The June number of this periodical well main-
tains its former character. Referring to the improving prospects, it
is remarked that the impending change is of commanding interest
to investors. The stream of industry brought once more into com-
mon sense, cheerful, profitable channels will again strain to the
utmost the monied resources of the kingdom. The raw material
with which the bowels of the earth are filled will be sought with re-
newed vigour, and will yield commensurately increased returns. The
idle will find employment. The investor will be largely recompensed.
At present prices, good tin and copper properties in Cornwall are
doing well. With each future improvement in trade they will do
better, until the fabled profits of bygone days are once more real-
ised. Few industries in the past have a better profit record than
the mines of Cornwall, and in the future there are none so full of
promise. A more favourable time than the present for investment
in good mining properties was never known.

GLYCERINE.—Notwithstanding the low price which now prevails
for almost every description of raw produce and manufactured goods
there are a few articles which form notable exceptions. Perhaps one
of the most remarkable of these is refined glycerine, which within
the last two years has advanced from about 30*l.* to 130*l.* per ton avoirdupois for 36° Beaume. This enormous advance is due partly to in-
creased consumption, diminished production, and the influence of
speculation working on a market devoid of stocks. In view of the
present position of the article, and the prospect of a continuance of
high prices for a considerable time to come, the attention of soap-
makers is now being turned to the utilisation of their waste "leys,"
and various new processes for recovering the glycerine contained in
these liquors have lately been tried with more or less successful re-
sults. Apart from minor impurities waste soap "leys" are generally
found to contain glycerine, carbonate of soda or caustic soda, chloride
of sodium, gelatine, and albumen. One of the processes for recover-
ing the glycerine which promises to be the most economical and the
most successful begins with concentrating the liquor until the salts
contained therein begin to crystallise. The liquid is then cooled, and
filtered to rid it of gelatine and albumen. It is afterwards made to
absorb carbonic acid, which precipitates bicarbonate of soda, and
which is separated from the liquor in the usual way. After under-
going this process the liquor is then made to absorb gaseous hydro-
chloric acid until what remains of carbonate of soda has been con-
verted into chloride, and further until all, or almost all, the chloride
of sodium has been precipitated, and separated from the liquor in the
usual manner. Arrived at this stage the liquor contains water, gly-
cerine, and hydro-chloric acid. The acid is then evaporated entirely,
and absorbed in water for using afresh. The delute glycerine re-
maining can be purified by filtering it through animal charcoal, or
by concentrating and distilling it in the usual way.

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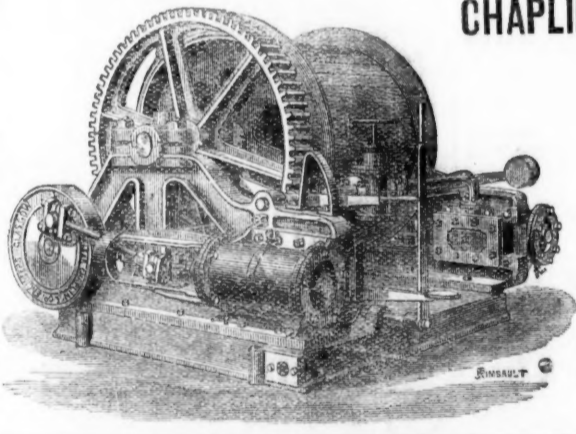
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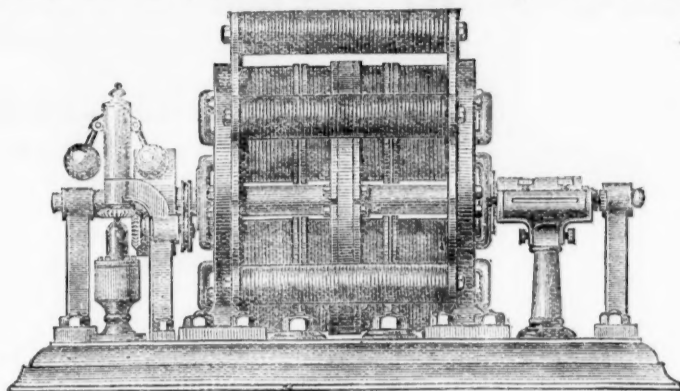
THE DYNAMO-ELECTRIC MACHINE SUPERSEDES EVERY KNOWN BATTERY.

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GIVEN ON
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SHOULD STATE
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FOR WHICH THE
MACHINE IS REQUIRED.

The "Elmore" Patent Dynamo-Electric Machine,

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REPEATED COMPARATIVE TRIALS have proved that this is the MOST POWERFUL MACHINE IN THE MARKET, that it NEVER REVERSES CURRENT, and that it is very easily worked without special knowledge.

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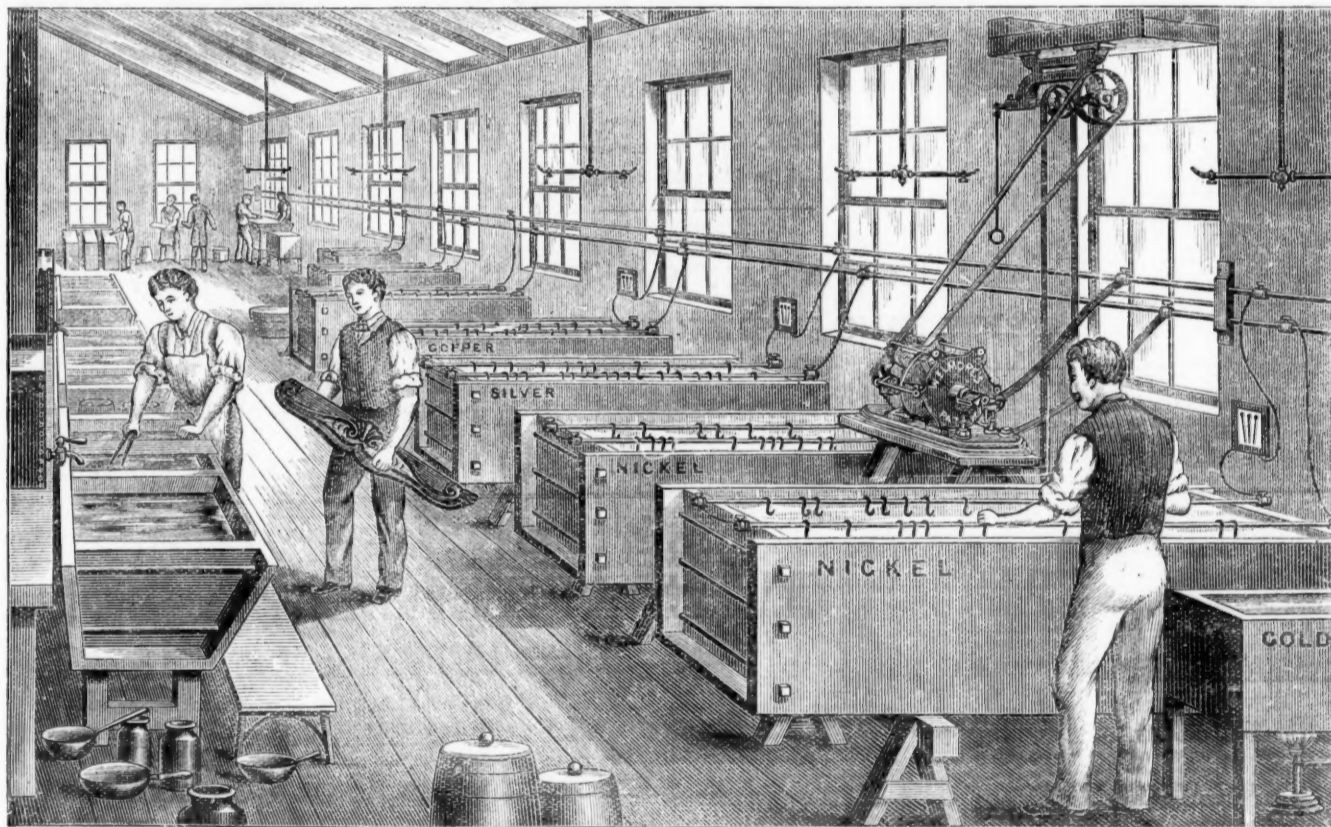
TO TIN-PLATE MANUFACTURERS AND GALVANIZERS.

The attention of TIN-PLATE MANUFACTURERS AND GALVANIZERS is respectfully directed to the NEW PROCESSES of manufacturing Tin-Plates by depositing the Metal by the current of an "ELMORE'S PATENT" DYNAMO-ELECTRIC MACHINE through aqueous solutions in contradistinction to the old processes of dipping in molten metal.

THE ELECTRO DEPOSITED METAL IS PERFECTLY REGULAR IN character, and the electric current may be so EASILY CONTROLLED as to coat with a MERE FILM OF METAL, OR A DEPOSIT OF ANY DESIRED THICKNESS. The great economy in the cost of plant and cost of production will be immediately self-evident. As nearly the whole of the existing plant can be used in the new process, the cost of altering the system will be comparatively trifling.

DYNAMO-ELECTRIC MACHINES

SPECIALLY CONSTRUCTED FOR DEPOSITING ANY METAL IN ANY QUANTITY.



The above represents an Electro-plating Works, in which an "ELMORE" PATENT DYNAMO-ELECTRIC MACHINE is being used for the deposition of Nickel, Silver, Copper, Bronze, Brass, Gold, Tin, Zinc, &c., from their Solutions.

From "INDUSTRY."

"By means of the dynamo-electric machine of Mr. William Elmore, the perfection of nickel-plating is obtained. Dynamo-electricity—that is, electricity produced by motive power—presents advantages which cannot be claimed by any galvanic battery known. Not only is the current produced at a far less cost, but it can be so regulated or controlled that the smallest article can be separately coated by a dynamo-electric machine, capable (in its full application) of depositing from 25 lbs. to 30 lbs. of silver per hour. It is a remarkable fact, moreover, that metals can be deposited from their solutions by dynamo-electricity in less than one-third of the time occupied by the ordinary battery in producing the same result. The quality of the deposit, in regard to its smoothness and regular character, is greatly in favour of dynamo-electricity.

"Having had considerable experience in dynamo-electric machines, Mr. W. Elmore has been careful to note the defects and irregularities which some of the less skilfully constructed machines have presented, and thus he has been enabled to produce a really practical and effective machine, of great power, which may be thoroughly depended upon as being capable of giving the most satisfactory results for all purposes of electro-deposition, including gilding, silvering, bracing, nickeling, and electrotyping.

"The advantages of dynamo-electricity in the important art of electrotyping are beyond estimation. When it is known that a fine, clear, deposit (or 'shell') of copper, 800 ft. square feet, can be obtained by a dynamo-machine in less than three hours, without 'pin-holes,' and other defects common to battery deposits, it will be at once seen that the ordinary battery is effectually and unmistakably superseded.

"One of the most useful purposes to which dynamo-electricity can be applied is the production of chemically pure nickel solutions, and salts of nickel, for the electro-deposition of the metal. The vast amount of elec-

tricity generated in a dynamo-machine enables one to dissolve nickel and other metals in their own solvents, far more economically, and in greater purity than by the ordinary method of treating metals. Electrical power obtained by the ordinary galvanic battery would be far too expensive for this purpose. The solutions formed by the aid of dynamo-electricity are not only purely and economically made; but they can be produced in far less time, and with comparatively little trouble and attention. To Mr. Elmore is due the honour of having introduced into this country the process of making pure nickel solutions and salts by means of dynamo-electricity. The boon he has thus conferred upon a large industrial class we need not dwell upon."

From "THE IRONMONGER."

"A still further improvement in the deposition of metals has been recently obtained by the introduction of the dynamo-electric machine of Mr. Wm. Elmore, which is in reality electricity produced by motive power. By this means the current is obtained at a much less cost, and I have seen it regulated to such a nicety that the smallest article could be separately coated in a full-sized vat. The deposit is also effected in about one-third of the time taken by a galvanic battery, and for smoothness and regularity of surface is greatly in favour of the dynamo process, which may be known from the fact that all Mr. Elmore's competitors, both in London and elsewhere, are fast adopting his machine in preference to the old process. He has, in addition, supplied it to many large firms throughout the country for electrotyping purposes, and the reports received from them are gratifying to the inventor. Mr. Elmore is also the author of an interesting little work on the subject, which may be read with interest by those who contemplate entering into what is fast becoming an important industry."

WILLIAM ELMORE, 91, BLACKFRIARS ROAD, LONDON, S.E.

DYNAMO-ELECTRIC MACHINES FOR ELECTRIC LIGHTING.

DYNAMO-ELECTRIC MACHINES SPECIALLY CONSTRUCTED FOR DECOMPOSITION.

DYNAMO-ELECTRIC MACHINES FOR DEPOSITING ANY METAL IN ANY QUANTITY.

THE GRAND PRIZE, THE TRIPLE AWARD.

Gold Medal, Silver Medal, and Honourable Mention awarded at the Paris Exhibition, in competition with all the World,
FOR MY LATEST PATENTED STONE BREAKERS AND ORE CRUSHERS.

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MINING INSTITUTE
OF CORNWALL.

H. R. MARSDEN,

ORIGINAL PATENTEE AND SOLE MAKER OF BLAKE-MARSDEN

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MORTAR MILLS
&c. &c.

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TOGGLES.
OVER 2750 IN USE.

NEW PATENT WROUGHT-IRON CONNECTING
ROD.

New Patent Draw-back
Motion.

NEW PATENT STEEL TOGGLE BEARINGS.

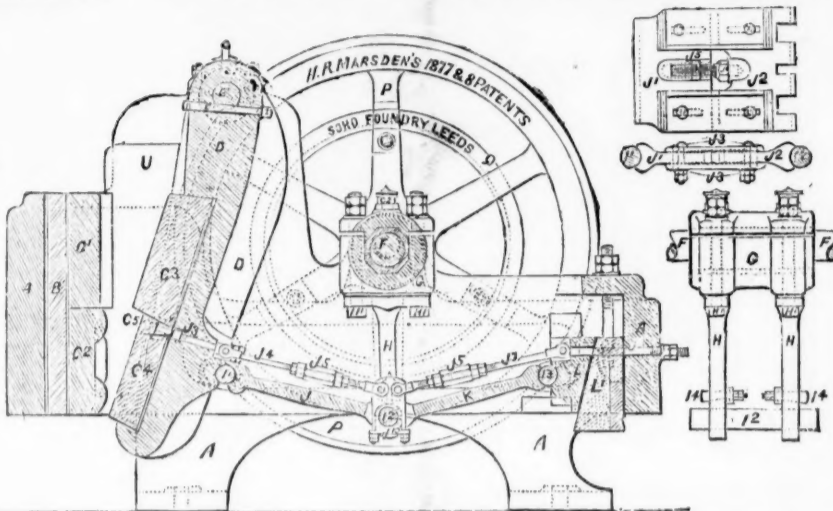
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PRIZE MEDALS.

ALL BEARINGS are renewable, and made of H.R.M.'s Patent Compound ANTIFRICTION METAL.
CATALOGUES, TESTIMONIALS, &c.

H. R. MARSDEN, SOHO FOUNDRY, LEEDS.

Patentee of the New Patent Special Fine Crusher, for reducing Gold Quartz, Lead Ore, and all kinds of Materials to an impalpable powder. Awarded the FIRST SILVER MEDAL by the Cornwall Mining Institute. Particulars of results, &c., on application.



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Soho Foundry, Meadow-lane, Leeds.

St. John del Rey Mining Company (Limited).
A SAVING OF FIFTY-FIVE HANDS BY THE USE OF
ONE MEDIUM-SIZED MACHINE.

BLAKE'S STONE BREAKER.—Statement made by the Managing Director of the St. John del Rey Mining Company, Mr. John Hockin, with regard to six months' practical working of Blake's Stone Breaker, affording facility for judging of the relative economy of machine and hand labour in this kind of work, and also of the cost of getting the Stone Breaker to work in difficult places. The price paid to Mr. Marsden for the machine referred to by Mr. Hockin was £180, and adding to this the cost of engine, carriage, and fixing, the aggregate cost to the company of the Breaker in working order was £500. By this outlay the company is enabled to dispense with the labour of 55 people, the value of which is £600 per annum. The cost of working the machine could not be more than the wages of about five men (the machine requires but one man to feed it, so that the rest would be for engineer, fuel, oil, &c.), and allowing for interest on outlay and for renewal when necessary, the saving must be enormous.—Mining Journal.

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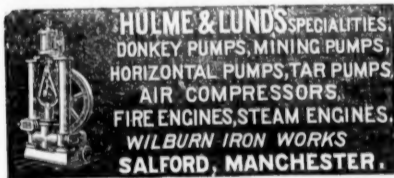
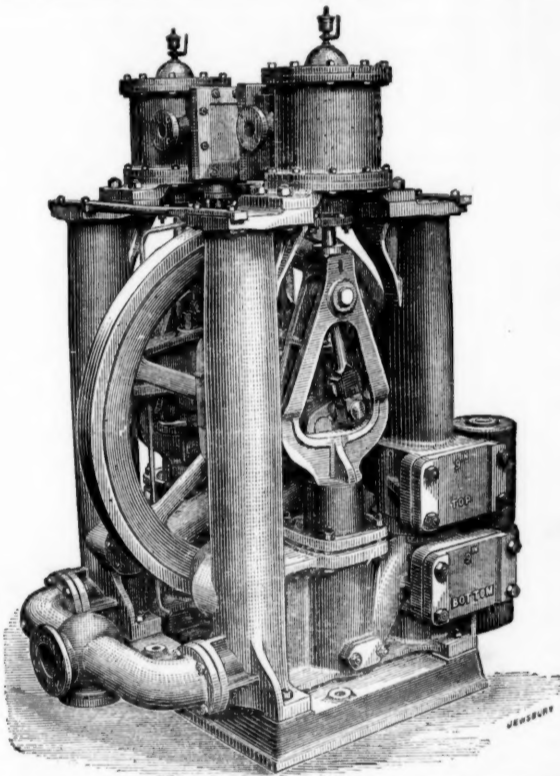
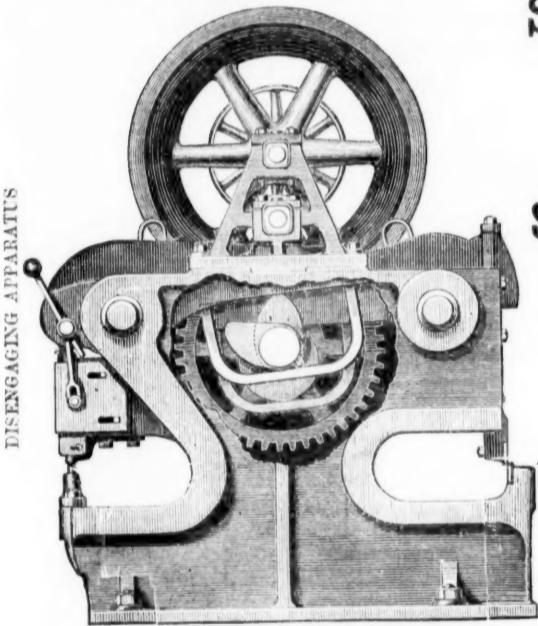
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